PACIFIC ARCHITECTS & ENGINEERS, INC.

FINAL REPORT

Contract ICA/W. 543

Kabul University Project .044

May 1964 Report No. 48

May 20, 1964

To: The Royal Government of Afghanistan
Ministry of Public Works
Kabul, Afghanistan

Director, US AID Kabul
United States Mission to Afghanistan
Kabul, Afghanistan

Director, Afghan Desk
US AID Washington D. C.

Subject: Final Report - Kabul University

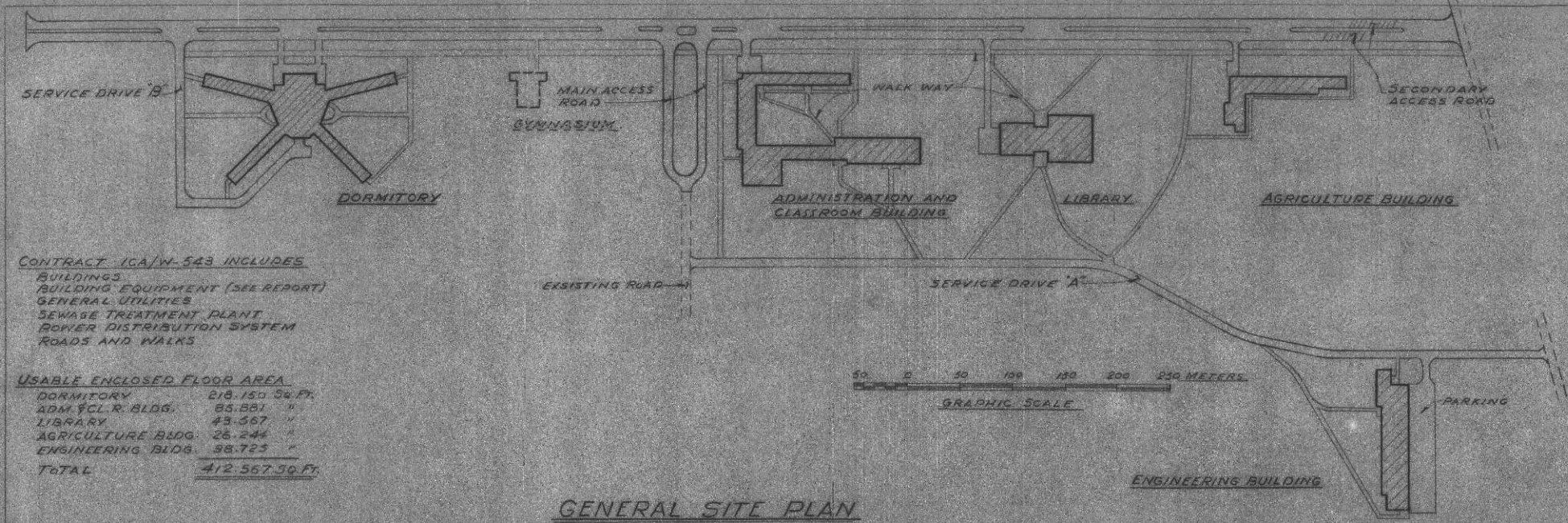
Gentlemen:

Please find attached herewith complete report covering all construction phases of Kabul University. This report is written chronologically, starting with 13 January 1960, thru to 15 May 1964. For complete statistical coverage, report is arranged as follows:

PART I	CONSTRUCTION
PART II	CHANGE ORDERS
PART III	MATERIAL
APPENDIX I	FINANCIAL
APPENDIX II	ACCEPTANCE PAPERS

Respectfully submitted on this 20th day of May, 1964,

Gunter P. Steitz, Resident Engineer
Pacific Architects and Engineers
Kabul University Project



CONTRACT ICA/W-543 INCLUDES

BUILDINGS
BUILDING EQUIPMENT (SEE REPORT)
GENERAL UTILITIES
SEWAGE TREATMENT PLANT
POWER DISTRIBUTION SYSTEM
ROADS AND WALKS

USABLE ENCLOSED FLOOR AREA

DORMITORY	218.150 Sq. Ft.
ADM. & CL. R. BLDG.	85.881 "
LIBRARY	43.567 "
AGRICULTURE BLDG.	26.244 "
ENGINEERING BLDG.	38.725 "
TOTAL	412.567.30 Ft.

GENERAL SITE PLAN

FINAL REPORT PART I - CONSTRUCTION

PACIFIC ARCHITECTS & ENGINEERS, INC.
CONTRACT ICA/W 543
KABUL UNIVERSITY PROJECT 044

Pacific Architects and Engineers, Inc. herewith submit the final report as described in appendix E of the contract between International Cooperation Administration and Pacific Architects and Engineers Inc. signed on 31 January 1958.

The work and services required under Phase II started on 13 January 1960. The designated Resident Engineer for PA&E was on the payroll on 18 March 1960 and arrived in Kabul in April 1960. During the time between 13 January 1960 and April 1960, PA&E personnel under Phase I performed service under Phase II.

The contract between the Ministry of Public Works, Royal Government of Afghanistan and Hochtief Aktiengesellshaft Fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann for construction of Kabul University Project was signed on 7 January 1960.

The scope of work stated that the contractor, Hochtief A. G. shall furnish all of the materials and perform all of the work shown on the plans or drawings and described in the specifications entitled project 044 educational facilities, Kabul University, prepared by Pacific Architects and Engineers, Inc. as follows:

1. 800 Student Dormitory
2. Library
3. Engineering Building
4. Agriculture Building
5. Administration and Classroom Building
6. Utilities - including siting, grading, sewage treatment plant, modified electric utilities, water distribution system, sanitary sewer system, electric distribution, roads and walks, site development.

And whereas Pacific Architects and Engineers performed all services as described in Phase II of the contract, (supervision and inspection of construction phase).

1. CONSTRUCTION

On 20 February 1960 the contractor, Hochtief started working

on general installation of site for his use during construction period in Aliabad (Kabul University Construction site). Included were offices, workshops, storage, water supply for site, sanitary facilities, roads to offices and fencing. This work was completed at the end of September 1960. On 1 June 1960, the contractor Hochtief moved from his main office in Kabul to the construction site. The draftsman (office engineer) arrived from Tokyo on 24 May, 1960.

On 2 June 1960 a ceremony was held breaking ground for the construction of the university. Excavation started with the Dormitory. In the meantime some material was ordered and construction equipment arrived at the jobsite. Hochtief had 22 persons - engineers, foremen and office personnel - on their payroll. At this time there was already a shortage of cement in Kabul. The contractor, Hochtief was making an all-out effort to get cement from Pakistan or India.

In July 1960 materials were moving from Karachi to Kabul. The contractor had reached a tentative agreement to buy cement from India. No cement could be obtained from Pakistan. Also some more construction equipment arrived at the jobsite. Excavation for the Dormitory was in progress.

In August 1960 no concrete was placed because of Hochtief's having no cement. More materials arrived at the jobsite - mainly reinforcing steel. Footing excavation and placement of reinforcing steel was in progress. Several meetings were held to settle on revising the secondary electrical distribution from 480/277 to 380/220 volts as is standard in Kabul.

In September 1960 only a small amount of concrete was placed, as there was still no cement from India. This concrete was placed in the foundation of wing A - Dormitory. Excavation and placement of steel was in progress.

Site and selection of clay had been determined for production of best quality local bricks. The contractor, Hochtief was also in process of stock piling river-run aggregates in an area close to the screening plant. At the end of September, construction equipment at the jobsite was as follows:

A complete crushing, screening and washing plant for aggregates
A complete carpenter shop
A complete machine shop
A complete blacksmith shop
5 Diesel Dump Trucks
14 Mine Type Dump Cars w/Track
3 Tower Cranes and Track
1 Michigan Front End Loader
5 Concrete Mixers 500 L
3 Concrete Mixers 250 L

2 Steel Bending Machines
2 Steel Cutting Machines
1 Mobile Crane
And many hand tools

In October 1960 no concrete was placed as there was still no cement from India, but clearance was given and on 13 October the first shipment of cement left India. Materials - mainly reinforcing steel - arrived during the month. Excavation of wing B of the Dormitory was started. Steel bending and placement of steel in footing and grade beams was in progress in wing A and B.

Also in October the Resident Engineer for PA&E went to Germany and England with a representative from Hochtief and Heinemann; and approved approximately $1,500,000.00 worth of materials - mainly mechanical items. This included piping, heating and ventilation items, refrigeration, food service, boilers, etc.; also included were paints, roofing water-proofing and damp-proofing metal flashings, expansion joint materials and windows and doors from England.

The Construction Engineer for PA&E arrived in Kabul on 6 October 1960. At the end of October, PA&E forces were:

1 Resident Engineer
1 Construction Engineer
1 Draftsman
1 Secretary

At this time, Hochtief had 33 personnel working on the jobsite.

On 3 November 1960, the first shipment of cement arrived on the jobsite from India. Cement shipment continued to arrive every other day. There was also enough reinforcing steel in stock to continue placement. During the month of November the contractor placed close to 1000 m 3 of concrete in the Dormitory footings, grade beams and foundation walls. Excavation for wing C and D and the main building of the Dormitory started. Also, excavation for the Administration and Classroom Building started. Hochtief increased their personnel to 39 in November.

In December 1960, contractor, Hochtief placed 645 m 3 of concrete in the Dormitory. Also they started manufacturing required sizes of concrete sewer pipe in standard steel molds. Cold weather placement and curing started during this month.

In January 1961 the contractor placed 762 m 3 of concrete in the Dormitory. Also first placement of concrete was made in footings and grade beams of the Administration and Classroom Building (294 m 3). Steel placement and formwork was continuous in both buildings. Construction materials and supplies began to arrive at the jobsite. Shipments of steel and cement arrived on a weekly schedule.

Up to this time the change in the secondary electrical distribution for the university had not been finalized. The contractor started surveying and laying out the Library.

In February 1961 the contractor placed 750 m 3 of concrete in the Dormitory and in the Administration and Classroom Building. Steel placement and form work, in connection with excavation was in progress for these two buildings. Excavation for the Library started. Mechanical materials began arriving in small quantities. Changes in electrical design were still pending final negotiation. PA&E staff was working between 55 and 60 hours per week to cover adequate inspection service. During this month, the General Engineer for PA&E arrived in Kabul.

During the month of March excavation, steel placement and formwork was continuous. Concrete was placed as follows: 462 m 3 of concrete in Dormitory, 544 m 3 in Administration and Classroom Building, and 259 m 3 in Library. The Agriculture Building was laid out and excavation was started on same.

During the month of April the contractor placed 1384 m 3 of concrete in the Dormitory, Administration and Classroom Building, Library and Agriculture Building. The Engineering Building was located as per design drawings and staked out for excavation. US AID gave approval for redesign of electrical system. The purpose of the redesign is to comply with the request of the RGA and the contractor to change the voltage from 480/277/220 to 380/220 voltage to be compatible with the Kabul city system, maintenance capabilities, and supply stock. The basis for the redesign will be 380/220 volts, 50 cycles, and specifications will be in accordance with German VDE & DIN standards. The office engineer for PA&E Kabul, left on 7 April for PA&E Tokyo office, with all drawings and pertinent data to start assisting in redesign of the electrical distribution system for this project.

During the month of May 1961, a total of 848 m 3 was placed into all buildings except the Engineering Building. Excavation and placement of French drain around the Engineering Building was completed and revised drawings were at the jobsite.

In June 1961 a total of 1600 m 3 of concrete was placed in all buildings. The Engineering Building was also under construction. During this month, the contractor, Hochtief and sub-contractor Heinemann, also PA&E worked from 10 to 12 hours daily for 29 days during peak construction time. During this month it was suggested by PA&E that one deep well be tied into the Kabul University water system.

In July 1961, a total of 1750 m 3 of concrete was placed - mainly in the Dormitory, Administration and Classroom Building, and the Library. Work started on the Sewage Treatment Plant and sanitary sewage line. Formwork and steel placement was in progress in

all buildings. The kitchen equipment for the Dormitory, also cast iron pipe for watermain and branches, arrived at the jobsite. As a result of rough handling, the equipment and materials sustained considerable damage enroute. The contractor, Hochtief manufactured over 50,000 concrete blocks at the jobsite. Concrete pipes and pre-cast terrazzo, also some wood items, were being manufactured by Hochtief in Kabul. The marble factory and furniture factory producing the forenamed articles, is operated by Hochtief Afghanistan Central Office.

The amendments of PA&E contract were signed on 19 July 1961. Revised electrical drawings for all buildings and related facilities were delivered to US AID, with copies to the contractor. Siemens Afghanistan Limited, who have been approved as the electrical subcontractor, signed contract with Hochtief A. G., upon receipt of all revised drawings.

In August 1961 the contractor, Hochtief placed 1270 m 3 of concrete in all buildings, except the Engineering Building. Formwork and steel placement was in progress. There were also strong indications that the border between Afghanistan and Pakistan would be closed to transportation of imported commodities. In this month US AID decided to replace the PA&E Resident Engineer.

On 6 September 1961 the border between Afghanistan and Pakistan closed. The contractor stated that a partial shut-down would be necessary around the 15th of November 1961. At the time the border closed 600 tons of cement, plus 7,000 m 2 of plywood for formwork was laying in Peshawer, Pakistan. Also, approximately $1,000,000.00 worth of imported commodities from the United States and Europe were in transit or had reached Peshawer and could not be transported over the border. The contractor cancelled orders on all supplies that had not yet reached transit stage.

At this critical time it was pointed out by the Writer, that storage facilities in Peshawer were primitive at best and such items as cement and plywood would be rendered unusable unless protective measures were taken. The possibility of diverting these supplies to other U.S. interests in Peshawer rather than suffer a loss in event of prolonged storage, was suggested.

The Resident Engineer for PA&E from 18 March 1960, terminated his employment under contract ICA/W 543 on 15 September 1961. The Writer, who was at this time Construction Engineer, assumed duties as the Acting Resident Engineer as of 9 September 1961. On 13 September 1961, the Civil Engineer for PA&E arrived at the jobsite. During the month, several meetings were held between the RGA and US AID officials regarding minor modifications. As a result of these meetings several change orders were written for the Ministry of Public Works by the Acting Resident Engineer. There was also some discussion of an independent water supply for future use of the University.

In September 1961 the contractor placed 1, 148.5 m 3 of concrete, which brought the total amount of concrete in place to 12,620.5 m 3. Due to the border closure, the contractor released 170 Afghan laborers.

In October 1961, due to the increasing gap between estimated progress and actual progress (caused by failure of material to arrive), the overall progress chart was revised. This revision was based on the bar graph submitted by the contractor to PA&E. The bar graph was approved by PA&E in a letter to the RGA on 26 July, 1961. Several more change orders were written by PA&E for the Royal Government of Afghanistan. Shortage of material had now reached a critical stage. All of the structural concrete for wing A and B of the Dormitory was in place; mechanical items, doors and windows for these two wings, were in Pakistan. Interior work scheduled for the winter months was delayed due to material shortage.

Formwork and steel placement for wing C and D of the Dormitory and the Administration and Classroom Building, was in progress. Structural work for the Library and for the Agriculture Building was also in progress. Formwork and steel placement was in progress for the Sewage Treatment Plant. Also, excavation and placement of water-main and sanitary sewer line was in progress.

In all structures, a total of 1584.3 m 3 of concrete was placed for the month of October 1961. At peak construction before the border closed 1750 Afghans were employed. During the month of September and October, the contractor's Afghan personnel dropped to 1247 Afghan labor personnel.

In November 1961, 1814.5 m 3 of concrete was placed in all buildings and utilities. This was the first time a complete breakdown of costs and structural concrete was made. The Acting Resident Engineer formulated this system for a more detailed control of costs and materials. Concrete in place at the end of November 1961 was 63.76 per cent. Several more change orders were written by PA&E and submitted to US AID and RGA. Work on mechanical installation was slow due to the lack of material.

At the end of December 1961, Afghan labor force had dropped to 668. Contractor Hochtief released four and transferred one foreman. The border between Afghanistan and Pakistan was still closed. Materials which had reached Peshawer at the time the border closed had now been stored over five months. Attention was given to the cost of re-routing materials now in Pakistan through Iran, and supplying the balance of imported materials through Iran. Also it was necessary to consider additional handling and possible damage due to the longer route.

Up to this date, no decision had been reached on how the university project should continue. Due to shortage of materials, the contractor had stopped work on many operations - mechanical, elec-

trical, installation of doors and windows, and miscellaneous items - . Supply of cement and form lumber had reached a critical stage. A total of 1,196 m 3 of concrete had been poured into all buildings, except the Library. Approved Afghan cement had been used for the ground floor construction. According to the new progress chart, the overall completion figure should have been 46.00 per cent. But due to supply shortage, the figure was 38.69 per cent.

In January 1962, 697.5 m 3 of concrete was poured in all structures. Of the 24,966.0 m 3 of concrete needed for this project, 17,972.8 m 3, or 71.35 per cent, was in place. A percentage breakdown per building on concrete in place as of 30 January 1962 was: Dormitory 67.55 per cent, Administration and Classroom Building 99.18 per cent, Library 97.42 per cent, Agriculture Building 72.00 per cent, Engineering Building 36.54 per cent, Sewage Treatment Plant and Utilities 17.35 per cent.

As of 31 January 1962, $2,839,726.01 or 40.81 per cent of the cost of this project had been approved for progress payment. On 29 January 1962, the border between Afghanistan and Pakistan was opened on a conditional agreement of two months to allow clearance of US AID materials held in Pakistan. The contractor sent trucks and men to Pakistan to transport construction material to the jobsite. Materials for Kabul University, held in Pakistan, amounted to 1583 tons, exclusive of cement.

During the month of February 1962, all material slated for Kabul University which had been backlogged in Pakistan, was transported across the border. A thorough inspection was made of the cement that was stored in Pakistan with the result that 260 out of 630 tons was determined to be usable and therefore transported to Kabul. After several test cylinders were made, the 260 tons were used only for non-structural work. The contractor ordered an additional 1100 tons of cement from India and 150 tons from Pakistan. In Europe and the United States, approximately 600 tons of material were held awaiting orders on shipment. US AID officials were trying to extend the period of the conditional border opening.

During the month of February 1962, 554.3 m 3 of concrete was placed in the Dormitory, Administration and Classroom Building and Agriculture Building. Otherwise construction was slow as the contractor had received a six month's supply of backlog materials and all personnel were diverted to the handling and storing of this material. With supplies available, plus additional cement on order, it was estimated that construction could continue to a point of 60 per cent completion.

In March 1962, the total Afghan labor personnel was 942; or an increase of 274 laborers since December 1961. The border between Afghanistan and Pakistan closed on 29 March 1962, after being open for a period of two months. All contractor material had been trans-

ported to Kabul University. In addition to material stored, the contractor, with the assistance of U. S. officials was able to buy more cement in Pakistan - a total amount of 2196 tons - and this material was shipped to the jobsite. Although the contractor had several commitments for 1100 tons of cement in India, a political difference between India and Pakistan resulted in border problems in clearing this cement for shipment.

Also in March 1962, the contractor, Hochtief started production of bricks to be used in the Kabul University project. Of the first 80,000 bricks inspected, 50,000 were disapproved. Approximately 5 per cent of the remaining 30,000 bricks were culled during the laying process. The reason for disapproving the bricks was that the Hochtief main office brick plant was not functioning properly. The brick cutting machine was hand operated and gave uneven surfaces to a great percentage of the bricks. The burning process was irregular and many of the bricks did not have enough structural strength. The clay grinding process was not fine enough, causing a residue of small lime lumps, and the finished bricks had cracks. Later, the brick plant was able to control the process, with a result of higher quality bricks.

During this month, some final change orders were signed by the RGA. The contractor also started preparation for door and window installation for wing A and B of the Dormitory. Work in all phases of construction was resumed on all buildings; 399 m 3 of concrete was placed in all structures, except the Agriculture Building.

During the month of April 1962, the contractor had 990 Afghan labor personnel on his payroll. There were enough supplies on hand to keep working for about 5 months. There had been further discussion of using a new shipping route via Iran. Placement of concrete continued in wing C and D and the main building of the Dormitory, also formwork and steel placement was in progress. Window installation was in progress in wing A of the Dormitory. Mechanical and electrical work was in progress in the Administration and Classroom Building, Library, and Agriculture Building. Formwork and steel placement was continuous at the Engineering Building. During the month of April 1962 a total of 831.2 m 3 of concrete was poured in place. Work on the roads, watermain and sewer line was in progress.

In May 1962 satisfactory progress was being made in all phases of construction on all buildings. A stop order on road work was issued to the contractor. This action was deemed necessary until a change order could be negotiated for re-design of road section. Work on the sewer line, also fabrication of concrete pipe was in progress. Precast terrazzo was being fabricated for use throughout the university. As a result of decisions made during the border closure, furniture for the Administration and Classroom Building, and Library, was being fabricated locally. Several more change

orders were being processed. These changes were worked out between university officials and an equipment consultant from the United States (in connection with US AID Kabul). Total amount of concrete placed during the month was 678.8 m 3, bringing the total to 20,276.1 m 3, or 79.82 per cent complete.

According to the progress chart, the overall completion figure should have been 70.18 per cent; however, the supply lag resulted in a figure of 49.36 per cent. It was expected that construction would slow down again, due to the shortage of windows and doors and other imported commodities still awaiting shipment orders.

On 9 May, 1962, the Writer was approved by Washington US AID as Resident Engineer for Kabul University.

In June 1962, the contractor, Hochtief began releasing Afghan labor personnel. With reference to material needed for further construction, the contractor received authorization to ship supplies via Iran. With the exception of the interim period of February and March 1962, the border between Afghanistan and Pakistan had been closed seven months. About 1750 tons of material was on order in Europe and the United States awaiting shipping instructions. PA&E received four Afghan engineering students - one civil, two architectural, and one mechanical - to go thru an on-the-job training program. During the month of July a training program was set up so the students would get maximum benefit of their association with PA&E. They were familiarized with actual construction problems, and highlights of the project were gone over with them. This was followed up with studies of drawings and an outline of the work to be accomplished. This training was simplified in that students could not be expected to work with complicated technical problems; however, it did tend to acquaint them with some of the construction and maintenance problems which would be covered later.

During this month - June - PA&E gave much attention to the problem of water and electrical power for Kabul University. In this regard, PA&E suggested several alternatives to the RGA that would provide around-the-clock water supply for the university, as well as electrical power.

Construction on all buildings and work on the utility system was in progress. Fabrication of furniture at the Jangalak factory, also fabrication of precast terrazzo at the Hajari Najari plant, operated by Hochtief Afghanistan Central Office, was in progress. The contractor was also fabricating concrete pipes and laying out same in the sewer system. Concrete in a total of 639.8 m 3 was placed during the month. Of the 25,401.0 m 3 needed for this project - including change orders - 20,915.9 m 3 of concrete had been poured in place. According to the overall completion figure, the project should have been 77.51 per cent complete, but actual progress was at 51.89 per cent, or 25.62 per cent behind schedule.

In July 1962 the contractor released 76 Afghan labor personnel. During the month, structural concrete work for wing C and D of the Dormitory was completed, and was still in progress in the main building. In the Agriculture Building, floor slab was being poured; in the Engineering Building a part of the flat roof slab was being poured. A small amount of concrete was being placed in the utility system. Total concrete placed during the month of July 1962 was 879.8 m 3. Excavation for watermain and laying pipe was stopped by the Municipality of Kabul authorities; however, approximately 300 meters of 300 ø mm cast iron pipe was laid, joined, tested, and backfilled. Again the problem of around-the-clock water supply for Kabul University was discussed but was not solved. Work in mechanical and electrical system continued throughout all buildings; but progress was slow. Excavation and laying of sewer pipe was in progress. Furniture for the university was being fabricated at the Jangalak factory. After approval of sample wardrobes, wardrobes for 800 students for the Dormitory were okayed for fabrication at Hochtief A. G. central carpenter shop - Jangalak. Arrangements were made for shipment of materials via Iran. The first shipment to come via Iran was slated to reach Khorramshahr late in August 1962. The route is by train from Khorramshahr thru Teheran to Meshed; by truck from Meshed thru Herat to Kandahar, and up to Kabul. To this date there was not much progress with regards to change orders. PA&E had prepared 20 change orders, which resulted as a request of Afghan university officials, equipment consultant US AID, and Afghan officials for the Ministry of Public Works. All change orders were signed by US AID and agreed upon by the Ministry of Public Works. To this date the Ministry of Public Works had failed to sign the change orders.

During the month of August 1962, six of Hochtief's and Heinemann's building trades foremen returned to Germany; 120 Afghan labor personnel were released. Water supply and electric power for the university were again discussed between all parties concerned. PA&E advised, also furnished possible solutions and estimates in this regard. To this date no decision had been reached by the RGA regarding this problem. During the month change orders were again discussed between the RGA, US AID, and PA&E, and still were unsigned in the Ministry of Public Works. The RGA had also failed to make payments to the contractor during the last months. The contractor, Hochtief advised the Ministry of Public Works that in accordance with Article C of the contract, the contractor would suspend work. Concrete placed during the month of August was 656.9 m 3 as follows: 417.7 m 3 in Dormitory, 97.0 m 3 in Engineering Building, and 142.2 m 3 in Utilities. Grand total of concrete in place was now 22,452.6 m 3 or 88.39 per cent of the total. Formwork and steel placement was continuous. Mechanical and electrical work was in progress. Six underground fuel storage tanks were lowered in place. Laying of concrete block and brick partitions was in progress. Construction of access road at the Sewage Treatment Plant was started.

In September 1962, the first material to be shipped via Iran arrived at the jobsite. During the month of June 1962, PA&E was authorized to hire one mechanical and one electrical engineer. This was cancelled, however, due to unstable conditions.

As previously mentioned, contractor Hochtief gave notice to terminate the contract, although work on the university was still in progress. US AID assured the contractor that a solution would be made by AID Washington, to complete the Kabul University project. Two building trade foremen arrived from Germany and 94 Afghan labor personnel were hired. Change orders were discussed again between the RGA, US AID and PA&E. Change order for curtain rods for shower stalls and prayer sinks for student toilets in Dormitory, and change orders for sight screens between all urinals - all buildings - were originated as a result of discussion between Kabul University officials and US AID. At that time, the Ministry of Public Works did not feel the additional costs justified the change, and therefore requested that these change orders be cancelled. During the month 727.5 m 3 of concrete was poured as follows: Dormitory 427.3 m 3, Agriculture Building 44.0 m 3, Engineering Building 203.2 m 3, and Utilities 43.0 m 3.

Masonry work in all buildings was in progress, including construction of concrete block and brick partition walls, cut stone facing, finishing of exposed concrete surfaces, exterior and interior brick back up masonry and brick facing. Installation of radiators, roughing in of toilet room plumbing - Dormitory - installation of steam supply and return piping, fabrication of fresh air duct, hot and cold water installation was in progress in the Administration and Classroom Building, Library, and Agriculture Building. The contractor completed the trunk sewer line along with manholes, and service lines for the Dormitory, also all other building service line installation was in progress.

At the end of October 1962, according to the contract and progress chart, work on Kabul University should have been 100 per cent complete, however the figure was 61.02 per cent. The job in October 1962 was 38.92 per cent behind schedule (exclusive of change orders).

In October 1962 cost breakdown per item was as follows:

ITEM	TOTAL AMOUNT PER ITEM	AMOUNT APPROVED AS OF 31 OCTOBER 1962	PERCENTAGE COMPLETE
General Item	$ 834,862	$ 714,917.03	85.60%
Dormitory	2,692,651	1,754,259.57	65.15%
Adm. & Clr. Bldg.	1,060,383	639,569.29	60.31%
Library	421,222	269,844.25	64.06%
Agriculture Bldg.	613,204	234,162.36	38.19%
Engineering Bldg.	423,695	205,118.54	48.41%
St. Gr. & Util.	325,828	194,323.81	59.64%
S. T. Plant	90,060	42,364.22	47.04%
Electrical	496,740	191,592.62	38.57%
Contract Amount	$6,958,645	$4,246,151.69	61.02%

Concrete Grand Total	Concrete in Place	Percentage Complete
25,401.0 m 3	23,976.4	94.39%

Up to the end of October 1962, approximately 1500 tons of material for Kabul University had arrived in Khorramshar; of this amount 60 tons had been shipped on thru to Kabul - 40 tons had cleared thru customs and the balance of 20 tons remained in customs for three weeks - . Considering the obstacles of this new shipping route and length of time taken in handling, a bottleneck had resulted. Also further delays had resulted as shipping documents had been sent with the first shipment - goods were being shipped in broken lots - therefore, when the balance of the shipment arrived in Kabul there were not the proper shipping documents to clear the items thru customs. The actual route and trucking facilities were inferior to that used at the onset of construction. As completion schedule depended on proper handling and receipt of supplies, this had become a serious problem to this construction.

to 26th of November, roof deck had been primed with asphalt primer. In the Agriculture Building, small portions of concrete slabs were being poured; installation of overhead piping, valves and appurtenances was in progress throughout the building. Electrical work was in progress. In the Engineering Building, prior to 26th of November, the last part of the roof slab was poured. Preparation for applying asphalt roof primer to roof surface was in progress. All sanitary sewer lines, mains, service and outfall lines were completed. Carpentry work was in progress in the carpentry shop and throughout the buildings. Approximately 1000 m 2 of precast terrazzo for floors had been fabricated and approved by PA&E. No progress was made on the watermain. Percentagewise, progress for the month of November 1962, was only 1.58 per cent.

In January 1963, doors, windows, glass, electrical and mechanical items arrived at the jobsite. With regards to construction progress in the Dormitory; installation of heating system and plumbing, laying of precast terrazzo tiled, was in progress. Glazing of windows, installation of insulated panels, of refrigeration equipment and fresh air system was started. In the Administration and Classroom Building, installation of water heating piping and tube-finned convectors was in progress, also work on the fresh air system. Electrical work in general was in progress. Window and door installation in the Library was in progress, also installation of fresh air system and heating system. In the Agriculture and Engineering Building, only a little mechanical and electrical work was in progress. Work in the carpentry shop was making satisfactory progress.

To this date about 5000 m 2 of precast terrazzo had been fabricated at the marble factory for floors and was ready for installation.

In February 1963, the contractor had a total of 815 Afghan labor personnel on their payroll. Materials for all phases of construction had arrived at the jobsite. The contractor Hochtief A. G. submitted invoices covering Force Majeure costs. PA&E conferred with various US AID officials on how to proceed. With regard to construction: in the Dormitory glazing and installation of windows and doors was in progress. Installation of insulated panels, laying of precast terrazzo floor tiles was in progress. In the Administration and Classroom Building the contractor resumed construction of interior brick masonry partition walls, and mechanical and electrical work was in progress. In the Library, installation of steel window frames was in progress; mechanical work was continuous. The contractor was preparing for roofwork and laying of precast terrazzo tiles. Work in general for the Agriculture Building and the Engineering Building was the same as for the Library. The contractor resumed work on sub-base construction on both the main and secondary access roads. A portion of pre-cast concrete and curb section had been cast and delivered to the jobsite. Carpentry work was in progress for the Dormitory, Library

and Engineering Building; also 1000 m 2 of precast terrazzo had been fabricated for the floors.

In March 1963, PA&E staff total 6, the contractor Hochtief personnel 20; and Heinemann, the subcontractor had 8 men. Afghan labor personnel totalled 1049 men. A US AID commission from Washington D. C. arrived in Kabul on 18th of March and left 2nd of April 1963 with the result of a signed contract between the United States Government and Hochtief A. G., to finance and extend the contract to the end of February 1964. The reason for this contract was that the RGA expressed its inability and unwillingness to finance all of the costs required to complete the construction of the university and related facilities, and requested AID to assist in such financing. AID agreed to this assistance and financing. Whereas due to change in original route and need to affectuate changes in drawings through approved change orders the contractor Hochtief declined to complete work under the original financial agreement. The Resident Engineer for PA&E worked in close coordination with the US AID commission regarding claims submitted by the contractor Hochtief. PA&E also finalized all change orders and submitted amendments to construction specifications for Kabul University on roads, sidewalks, and roofing and mechanical items. Also, approximate extra transportation cost per ton was compared, old route against new route, for surface shipment.

1.	Ocean Freight, approximately the same	
2.	Khorramshahr to Meshed . . .	$55.09
	Meshed to Kabul	75.82
	Total	130.91
3.	Karachi to Kabul	46.61
	Extra cost new route .	$ 84.30

This cost figure was established comparing 1000 tons via Karachi against 1000 tons via Khorramshahr by using about same items.

In April 1963, as a result of terms agreed on in the re-negotiated contract, a sum of $334,157.00 was approved for progress payment to the contractor Hochtief. A complete cost breakdown was given by PA&E accounting for all charges under the old lump sum contract, extra charges of Force Majeure, and a complete picture of percentage progress according to the new contract (see financial appendix I). Another result of the re-negotiated contract was that PA&E was now dealing directly with US AID, without submitting papers thru the Ministry of Public Works. The change orders had been reviewed by PA&E with a view to culling out any orders which

were not absolutely essential to this construction. Spring rains caused flooding along the supply route, hence no material arrived at the jobsite in April. The contractor again was having difficulty in securing cement.

In May 1963, the progress per new contract was 3.50 per cent. The contractor was successful in securing 175 tons of cement from the local Ghori factory; 400 tons of cement were ordered from Iran. Concrete placed during the month was as follows: 20.6 m 3 Utility System (foundation for road and walk way lighting poles), 62.0 m 3 Agriculture Building, 24.8 Dormitory. Approximately 80 per cent of the precast terrazzo (partitions, shelving, paneling and wainscot) had been delivered to the jobsite. Approximately 1,500 m 2 of precast terrazzo for floors had been fabricated, with a balance of 2,000 m 2 needed to finish this work. In the carpentry shop, fabrication of student unit desks, also installation of these desks had commenced. Fabrication and installation of pipe spaces in student units was in progress; fabrication and installation of screen partitions for the dining room was completed. Prefabricated benches for shower stalls were approximately 90 per cent complete. PA&E approved a sum of $276,948.00 for progress and performance for the month of May 1963.

In June 1963, 267 tons of material arrived at the jobsite via Iran, bringing the total tonnage received by this route to 2,006.1. The contractor received 120 tons additional cement from the Ghori factory and 206 tons from Iran. Road work for the university was in full progress. An estimate of three and a half months was set as necessary to finish road work. PA&E gave detailed discussion to obstacles of this construction; namely water supply, electrical power, and sewage disposal. In each instance, the problem was thoroughly analyzed and a solution was recommended, including estimates and other pertinent data. Concrete placed during the month was as follows: 26.2 m 3 in Utility System (additional manholes, road curbs, foundation of standards for overhead lighting), 16.3 m 3 Agriculture Building (roof and beams for transformer station and one stair entrance), 48.4 m 3 Engineering Building (roof and beams for transformer station, floor slab in laboratories and corridor).

With regard to construction in the Dormitory, masonry work in general (concrete block pipe spaces, laying of pre cast terrazzo tiles, placement of colorcrom floor topping and exterior cut-stone facing) was in progress. Installation of roofing (vapor barrier cork insulation and application of 3-ply felt covering) was in progress. Interior window and door installation was in progress. Mechanical and electrical work was in progress. Cabinet, built-in shelving work and painting was in progress. In the Administration and Classroom Building masonry work in general as listed in the Dormitory was in progress. Roofing was in progress; mechanical and electrical work was continuous. Contractor also started interior and exterior painting. In the Library, Agriculture Building,

and Engineering Building, mechanical and electrical work in general was in progress. Road work in general was continuous. All of the approximately 13,000 m 2 precast terrazzo to be used for floor had been delivered to the jobsite. The total floor terrazzo in place was 6900 m 2. A sum of $281,450.00 was approved for progress and performance for the month of June 1963; percentagewise progress was 3.56 per cent.

In July of 1963, PA&E gave a detailed report covering all work remaining to be done on the university. The contractor Hochtief had 813 Afghan laborers on their payroll; subcontractor Heinemann had 89 Afghan laborers on their payroll. As agreed in the terms of the new contract, MC 1 and RC 2 asphalt had been delivered to the jobsite for use on the university roads. A total of 274.8 tons of material, including 194 tons of cement from Iran, was delivered to the jobsite. At the end of July PA&E submitted to US AID work remaining to be completed on Kabul University as follows:

Dormitory:

1. Exterior Painting: Complete west elevation Wing "D" window frames, insulated panels and concrete canopies.

2. Interior Painting: Wings approximately 50 per cent to be painted plus all wood work. 70 per cent of Main Building.

3. Colorcron Floor Topping: 50 per cent of Wing "D", 100 per cent Wing "C". All Main Building with exception of top 3 floors west side study rooms and corridors.

4. Carpentry: Approximately 80 per cent of built-in desks and wardrobes remain to be installed in Wing Student Unit Rooms. All of wood handrails for stairways and balconies. Install all mirrors.

5. Window and Door Glazing: Approximately 75 per cent of west elevation Wing "D" exterior window glazing remains. All of interior door glazing in Main Building.

6. Masonry: Cut-stone facing of front and east retaining walls at main entrance.

7. Concrete: Porches and front entrance terrace. Topping for exterior entrance steps wings and Main Building.

8. Roofing: Application of insulation, fasteners and 3-ply felt covering sloping roof over Upper Lounge. 3-ply felt over low portion dining room and kitchen. Asphalt fill at edges, flashings and reflective coating all roofs. Roof transformer building.

9. Terrazzo: Clean, polish and apply preservative to all terrazzo floors.

10. Install balance of fly screen, Wings "C" and "D" and Main Building

11. Hardware to be installed on all doors.

12. Numbers and name plates for all rooms.

13. Install freight elevator and dumb-waiter.

14. Electrical: Nearly 100 per cent of lighting fixtures to be installed. Mechanical room equipment and kitchen equipment remains to be connected. Panel boards remain to be installed. Complete transformer equipment installations, telephone and clocks. Check of all electrical equipment and controls.

15. Mechanical: Complete installation of kitchen equipment. Install all toilet fixtures Wing "C". Complete tube-finned convector installation Wing "C". Complete insulation and covering mechanical room piping, and valves. Color coding of piping for identification and tagging of valves. Testing of boilers and heating system and check out of all mechanical equipment. Install toilet and bathroom accessories.

16. General: When work is substantially complete an inspection will be made and a punch-list prepared of deficiencies and corrections to be made.

Administration and Classroom Building:

Auditorium:

1. All interior painting.
2. All colorcron floor topping.
3. Roofing all remains with exception of barrell vaulted roof vapor-barrier.
4. Laying of finished stage floor.
5. Install seating.
6. Install all lighting.
7. Install stage curtains.
8. Install projection room equipment.
9. Hardware for doors.
10. Place covered walk-way concrete topping.

Part "A":
1. Lay pre-cast terrazzo floor tile corridors and rooms.
2. Colorcron floor topping 50 per cent remaining.
3. Painting 50 per cent both interior and exterior to be completed.
4. Install balance of toilet room fixtures.
5. Install hardware for doors.
6. Install fly screens.
7. Install stair handrails.
8. Install lighting fixtures.
9. Install telephone switchboard equipment.
10. Complete mechanical room equipment and controls installation.
11. Test of heating system and equipment operation.
12. Roofing - asphalt fill around edges, flashings and reflective coating.
13. Install bulletin boards.

Part "B":
1. 60 per cent of interior and exterior painting to be done.
2. Install chalkboards and bulletin boards.
3. Install stair railings.
4. Install all lighting fixtures.
5. Complete roofing, asphalt fill, flashing and reflective coating.

Part "C":
1. 70 per cent of painting remains.
2. Complete colorcron floor topping - Approximately 50 per cent.
3. Complete roofing - same as Part "A" and "B".
4. Place topping covered walkway.

Part "D":
1. Complete painting 70 per cent interior and exterior.
2. Complete roofing same items as Parts "A", "B", and "C".
3. Install door hardware.
4. Lay pre-cast terrazzo floor tile Senate Room.
5. Install all toilet room fixtures.
6. Install kitchen equipment and fixtures.

Library:
1. Install Anchors and cork insulation on pitched roof and lay 3-ply felt roofing.

2. Apply reflective coating to entire roof.

3. Install all roof flashings and roof drain fittings. Install splash pans.

4. Complete installation of door and window hardware.

5. Complete railings for stairs to 2nd floor.

6. Install curtain tracks for study alcoves.

7. Install all wooden baseboards as required.

8. Grind and polish all terrazzo floors. Install all terrazzo base as required.

9. Install all electrical raceways and fixtures, complete wiring, complete transformer vault, and check out and test electrical system.

10. Check out and test mechanical system.

11. Complete grading around building, pave service yard and approaches to building.

12. Complete and install all cabinetwork and millwork and furniture and apply finish to same as required.

13. Complete painting, interior and exterior.

14. Changes are being contemplated by US AID library expert. These will probably require additional partitions. When these changes become known, change orders must be written.

15. Check-out entire building, prepare "punch-list" and have contractor correct all deficiencies prior to turn-over of building and acceptance by owner.

Agriculture Building:

1. Install Anchors and cork insulation on pitched roof and lay 3-ply felt roofing.

2. Apply reflective coating to entire roof.

3. Install all roof flashings and roof drain fittings. Install splash pans.

4. Complete installation of door and window hardware.

5. Complete installation of colorcron floor finish.

6. Install all wooden baseboards as required.

7. Lay all pre-cast terrazzo floor tiles as called for. Grind and polish same. Install all terrazzo base and paneling and partitions as required.

8. Complete cement plastering for all exposed concrete surfaces as necessary.

9. Complete installation of steel window frames and glazing.

10. Install flyscreens where required.

11. Complete installation of colorcron floor finish where called for.

12. Install all electrical raceways and fixtures, boxes, and panels and complete wiring, complete transformer vault and check-out and test electrical system.

13. Complete pipe fitting in mechanical room, install toilet fixtures, install gas generator, complete installation of fin-tube radiators, insulate all piping and check out and test mechanical system.

14. Complete grading around building including fill for flower beds and pave approaches to building.

15. Complete fitting and installation of laboratory work tables cabinets etc., of which about 60 per cent require repair work, and connect utilities to same.

16. Complete interior and exterior painting.

17. Check-out entire building, prepare "punch-list" and have contractor correct all deficiencies prior to turn-over of building and acceptance by owner.

Engineering Building:

1. Complete cork insulation and 3-ply felt roofing on flat portions of roof and install anchors and cork insulation on pitched roof and lay 3-ply felt roofing.

2. Apply reflective coating to entire roof.

3. Install all roof flashings and roof drain fittings. Install splash pans.

4. Complete installation of door and window hardware.

5. Complete installation of colorcron floor finish.

6. Install all wooden baseboards as required.

7. Lay all pre-cast terrazzo floor tile as called for. Grind and polish same. Install all terrazzo base and paneling and partitions as called for.

8. Complete cement plastering for all exposed concrete surfaces as necessary.

9. Complete installation of steel window frames and glazing and flash fixed windows of saw-tooth roof.

10. Complete installation of electrical conduit. Install all raceways, boxes, panels and fixtures. Complete wiring, complete transformer vault and check-out and test electrical system.

11. Complete installation of fin-tube radiators. Complete pipe-fitting in Mechanical Room. Insulate all piping. Install gas generator and air compressor. Install compressed air piping. Check-out and test Mechanical System.

12. Complete grading around building. Complete sub-base and base of parking lot and pave same and approaches to building.

13. Complete and install all millwork and cabinet work, chalkboards, etc., and apply finish to same.

14. Complete painting of building, interior and exterior.

15. Execute all changes as initiated by US Engineering Team. This involves additional partitions, doors, gas generator house, electric generator house, additional sewer line and manhole and leaching cesspool. Also additional piping.

16. Check-out entire building, prepare "punch-list" and have contractor correct all deficiencies prior to turn-over of building and acceptance by owner.

Electrical Distribution:

1. Complete installation of standards for street lighting, install all lighting fixtures and complete wiring. Paint all standards.

2. Complete installation of transformers in all vaults and make connections to underground cables.

3. Check-out entire electrical distribution system.

Roads and Walks:

Surfacing of 40,000 square meters of roads and walkways. Some base course construction, shaping and compaction remains prior to road surfacing. Some fill remains to be placed and compacted for walkways prior to surfacing.

Sewage Treatment Plant:

1. Roofing of lift-station and chlorination buildings.

2. Installation of comminutor, all Lift Station pumps, piping and valves, and other mechanical equipment and controls. Installation of all chlorine equipment. Painting of all structures and piping and equipment. Surfacing of access road.

With regard to construction progress work was continuous in all buildings and in all phases of contruction was satisfactory.

During the month of August 1963, progress per contract was 4.19 per cent. From the month of April 1963 thru to the end of August 1963 progress under the new lump sum contract was 19.27 per cent. The border between Afghanistan and Pakistan opened August 1963. PA&E worked with US Engineering Team, Columbia University, and US AID Kabul in writing up change orders, furnishing sketches and work descriptions as requested by the respective teams.

A total of 97 tons of material arrived via Iran, bringing the total received via this route to 2,377.9 tons. In general, work for the month of August 1963 was as follows: Dormitory; installation of desk and wardrobe units, paneling of pipe spaces, placing of asphalt fill at roof edges, installation of lighting fixtures in wings A and B. In wing C of the Dormitory additional colorcron floor topping was placed, interior painting was in progress, pipe space and masonry work in toilet rooms was completed. In the main building of the Dormitory, the contractor continued with the cut stone facing of the front entrance terrace retaining walls. Interior painting was in progress. Additional colorcron floor topping was placed. The contractor commenced application of roofing insulation and felt covering on steep sloped roof over upper lounge. Insulation of mechanical room piping and equipment was in progress. Area site was being graded and placement of base for sidewalks was in progress. The backfill for front entrance porches was completed and reinforcing was placed. Installation of tube-finned convectors was completed, installation of kitchen equipment was in progress. An additional doorway, (per change order No. 1A) was being cut from grand lounge to lobby to added women's rest room.

In the Administration and Classroom Building (office wing), colorcron floor topping was completed. Laying of pre-cast terrazzo floor was in progress in the corridors and rooms. Additional interior and exterior painting was completed. Brick masonry partition work commenced in telephone switchboard area. Door hardware installation was started. In the classroom wing, work was substantially painting, installation of hardware for doors, installation

of lighting fixtures. In the laboratory and lecture room wing, exterior and interior painting was in progress. Colorcron floor topping had been completed. Covered-walkway topping had been placed. Patching, plastering and final finish of exposed concrete was in progress. In the Administration wing, the pre-cast terrazzo for the Senate Room floor was completed and installation of black marble base was in progress. Interior and exterior painting was continuous. The contractor completed installation of toilet room fixtures. In the auditorium, the contractor completed roofing of the flat-roofed areas with the exception of reflective coating. Topping of covered walkway was completed. Colorcron floor topping was begun. Complete patching, plastering and final finish of exposed concrete was done where required. Additional work was being done on transformer equipment installation.

In the Library, installation of pre-cast terrazzo base was in progress. Door hardware was being installed. The contractor was applying 3-ply asphalt roofing felt to flat roof areas. Construction of main circulation desk was in progress. The contractor moved previously fabricated card cataloging file cabinets into building, also installed fasteners and cork insulation for steep pitched roof area.

In the Agriculture Building, the contractor was plastering exposed concrete surfaces in classrooms and offices. Exterior and interior painting was in progress along with application of colorcron floor finish in laboratories and classroom. Laying of pre-cast terrazzo tile flooring in corridors and toilet areas was in progress. Installation of pre-cast terrazzo paneling dividing toilet compartments; installation of steel window frames and glazing window openings and doors was in progress. Also insulation of piping in mechanical room, finishing work on tube-finned convectors in laboratories and work on radiators in classroom, including pipe fitting of same. Work on electrical conduit system and wiring; installation of electrical control panel in boiler room, mounting of wall switches throughout the building, placing and fitting of imported laboratory furniture - was in progress.

In the Engineering Building, the contractor was cement plastering exposed concrete surfaces in laboratories, also rubbing concrete exterior of buildings. Rubbing of concrete, exterior and interior, was necessary, because of inadequate plywood lining. Shortage occurred as form lumber was delayed in Pakistan during the time the border was closed. Exterior and interior painting was in progress. Application of colorcron floor finish in laboratories and offices was in progress. Laying of pre-cast terrazzo tile flooring in corridor and toilets was being started. Anchor bolts were installed where wood partitions were to be erected in laboratories. Brick walls were being layed in coat room areas which were converted to work and storage room space. Installation of tube-finned convectors and related piping in offices and classroom was in progress.

Piping was being installed from the underground water tank in the hydraulic laboratory to the elevated steel storage tank. Discharge line to the trench was also being installed. Work on electrical conduit system for panel boards in various laboratories and wiring for lighting system was in progress. Application of 3-ply asphalt roofing felt for flat roof areas and fabrication of doors for former coat room area was in progress.

In the Sewage Treatment Plant the contractor was placing filter materials and completing construction of sludge drying beds. Work was progressing in the lift station and chlorination buildings in preparation for piping and equipment installation. Installation of electrical conduits in the lift station was in progress and miscellaneous backfill was completed in the adjacent area to the structures.

With regard to road work, preparation of base course continued on the main and secondary access roads and service drives A and B. This work was being done prior to application of prime coat. Approximately one half of these surfaces were primed with MC 1 during the month, plus the parking lot at the Engineering Building. Additional base course work was in progress for service drives.

In the electrical distribution system, installation of lighting fixtures for street lighting standards and wiring of same was in progress.

The Writer had several meetings with Kabul University officials to solve the maintenance program. It was pointed out that there would be a great benefit in an overlap of present PA&E staff, and incoming maintenance personnel for the university.

In September 1963, the 42nd month of construction of Kabul University, 153.3 tons of material arrived at the jobsite, via Iran. Orders were issued by the contractor Hochtief to re-route these materials thru the original route of Pakistan. The contractor Hochtief had 665 Afghan labor personnel on their payroll and sub-contractor Heinemann for mechanical installation had 75 Afghan laborers. PA&E approved the sum of $527,669.00 for progress and performance for the month of September. Percentagewise, the progress for September was 6.66 per cent; from the month of April 1963 thru to the end of September 1963, lump sum contract progress was 25.93 per cent as follows: April, 4.21 per cent; May, 3.50 per cent; June, 3.56 per cent; July, 3.81 per cent; August, 4.19 per cent; and September, 6.66 per cent.

Work progressed satisfactorily in all buildings and related facilities, with pipe insulation, plumbing, installation of tube-finned convectors, painting exterior and interior, installation of lighting fixtures, electrical control panels, transformer station, laying of low voltage cables, street lighting system, application of colorcron floor finish, laying of pre-cast terrazzo floors, and installation of pre-cast terrazzo base and pre-cast

terrazzo panels, installation of hardware, doors and windows, and installation of equipment all buildings.

As for roads and walkways all base course work was completed and prime coat applied. Laying of water line to the Demazang reservoir was in progress.

At the end of September 1963 work was complete as follows: mechanical, 95.16 per cent; electrical, 75.50 per cent; equipment, 79.50 per cent; doors and windows, 96.50 per cent; carpentry, 69.00 per cent.

In October 1963, the balance of material tonnage needed to complete Kabul University was approximately 35 tons; this amount was routed over Pakistan. A total of 2616 tons, including 400 tons of cement were shipped over Iran due to the border between Afghanistan and Pakistan being closed. The cost of this re-route was approximately $186,800. or approximately $84.30 per ton. Cement via Iran for Kabul was $42.00 per ton.

With regard to electrical power a temporary connection was made to the existing sub-station located approximately 150 meters west of the Dormitory. This connection can only give a limited amount of power to the university and cannot be regarded as a final solution to the power shortage problem. This problem was covered thoroughly in June (No. 39) report. Concrete placed during the month of October 1963 was as follows: 26.3 m 3 Dormitory; 11.6 m 3 Sewage Treatment Plant; 4.2 m 3 Agriculture Building. A sum of $199,593.00 was approved for progress and performance for the month of October 1963. Progress per contract was 2.52 per cent.

During October, construction progressed satisfactorily in all buildings and related facilities. In the Dormitory the contractor installed wardrobes, pipe space paneling and built-in desks, door hardware, and lighting fixtures, painted exterior and interior, and applied reflective roof coating.

In the Administration and Classroom Building pre-cast terrazzo placement was in progress, electrical control panel installation, painting, exterior and interior, also installation of door hardware. The contractor completed application of roof insulation and 3-ply felt roofing.

In the Library, interior finish carpentry and cabinet work was in progress, as was installation of electrical raceways and lighting fixtures. The finishing interior and exterior painting was also being done.

In the Agriculture Building installation of electrical raceways and lighting fixtures was in progress. Fitting of laboratory

furniture and pipe fitting for same was in progress. Window and door installation was completed, glazing of windows was continuous, also painting exterior and interior.

In the Engineering Building installation of electrical raceways and lighting fixtures was in progress; also, insulation of exposed piping, interior and exterior painting, installation of door hardware, adjusting doors, and finish-up roofing.

In the Library, progress was as is noted in the Engineering Building.

All roads and sidewalks were completed. Finish site grading was in progress, and work on street lighting standards was completed. Installation of cast iron watermain was completed.

In November 1963, the contractor was engaged in finishing process for the university. Of the 25,401.0 m 3 of concrete necessary for this structure, 25,169.6 m 3 was in place, or 94.68 per cent was complete. Permission was obtained in October 1963 from the Municipality of Kabul to connect water line to the Demazang Reservoir, and the contractor broke through the reservoir wall, installed piping and valve and placed concrete for the connection.

The last shipment of goods via Iran arrived at the jobsite. All other materials were routed thru Pakistan. It had been previously noted and mentioned that there was more damage involved in the longer route over Iran, due to lack of handling facilities enroute. Also, there was considerable delay due to papers being separated and lots being broken in shipping. At the time the border closed, it was a decision of all concerned in the university construction to fabricate whatever items could be reasonably duplicated and in accordance with the specifications, here in Kabul at the Jangalak furniture factory. In view of the damage that some of the more durable items sustained, and the time involved in reorder, this decision seems to have been in order.

It must be emphasized that in all phases of this construction, every operation and material used was subject to rigid inspection and tests. In the subsidiary agencies producing bricks, terrazzo, furniture, cabinets, PA&E conducted rigid tests to insure a conformance to highest standards. In the case of window installation, the Crittal Manufacturing Company of London, England, sent an expert to Kabul to supervise this operation.

Although at several times during the construction period, the problem of maintenance was discussed, and PA&E on several occasions outlined such a program. This particular phase was out of scope in our assignment here. It was, however, pointed out that such machinery, equipment, and facilities would not operate without care by trained personnel.

With regard to construction for November 1963, in all buildings finishing-up work was in progress on hardware installation, electrical raceways, lighting fixtures, electrical control panels, installation of toilet accessories, carpentry work, painting exterior and interior, cleaning up interior brick work and cutstone facing and roofing.

In the month of December 1963, PA&E made a complete inspection of all facilities and furnished all concerned with a complete punch list of deficiencies on the university. PA&E personnal was altered with the loss of a civil engineer, and the arrival of a mechanical engineer. The contractor was now phasing out personnel whose contract was finished and that particular operation in the university complete. The university was in its 45th month of construction. PA&E also gave a detailed report covering all work remaining to be done as follows:

Dormitory:

1. Exterior Painting: Touch-up only required.

2. Interior Painting: Wooden base boards, remainder of built-in desks and wardrobes, miscellaneous metal work.

3. Complete wood handrails for stairs, complete installation of wooden base boards, complete installation of built-in desks and fitting of wardrobes.

4. Clean, polish and apply preservative to all terrazzo floors.

5. Complete installation of door hardware and adjust all doors for correct operation.

6. Complete installation of numbers and name plates for all rooms.

7. Complete installation of electrical fixtures. Complete connections of kitchen equipment and Mechanical Room equipment. Complete installation and wiring for electrical panel boards. Install clocking and telephone equipment. Check out all electrical equipment and controls.

8. Complete installation of kitchen equipment. Complete installation of toilet equipment. Complete colorcoding for piping and tag all valves and provide directory. Test all boilers and heating system and check out all mechanical equipment.

9. Check out entire building, prepare "punch list" and have contractor correct all deficiencies prior to turn-over of building and acceptance by owner.

Administration and Classroom Building:

Auditorium:

1. Complete finish flooring for stage.
2. Install all seating.
3. Complete installation of lighting fixtures.
4. Install projection room equipment.
5. Complete installation of hardware for doors and adjust for correct operation.

Part "A":

1. Complete installation of pre-cast terrazzo base and wooden base as required.
2. Complete installation of toilet room fixtures.
3. Complete painting, interior and some exterior.
4. Complete installation of door hardware and adjust for correct operation.
5. Install stair handrails.
6. Complete installation of electrical fixtures.
7. Install telephone switchboard equipment.
8. Complete installation of Mechanical Room equipment and controls.
9. Test heating system and equipment operation.
10. Install bulletin boards.
11. Clean, polish and apply preservative to all terrazzo floors.

Part "B":

1. Complete interior painting and some exterior painting.
2. Install chalkboards and bulletin boards.
3. Install stair railings.
4. Complete installation of lighting fixtures.
5. Complete installation of pre-cast terrazzo base and wooden base boards as required.
6. Clean, polish and apply preservative to all terrazzo floors.
7. Complete partitions for Language Laboratory as per change order.
8. Install venetian blinds.

Part "C":

1. Complete painting, interior and some exterior.
2. Complete installation of electrical fixtures.

Part "D":

1. Complete painting, interior and some exterior.

2. Complete installation of door hardware and adjust for correct operation.
3. Complete installation of pre-cast terrazzo base and wooden base boards as required.
4. Complete installation of toilet room fixtures.
5. Complete installation of kitchen equipment.
6. Clean, polish and apply preservative to all terrazzo floors.
7. Check-out entire building, prepare "punch-list" and have contractor correct all deficiencies prior to turn-over of building and acceptance by owner.

Library:

Final check-out of building made December 23 and "punch-list" of deficiencies prepared. Contractor is working on clean-up of listed items.

Agriculture Building:

1. Complete interior, and some exterior painting.

2. Complete installation of door hardware and adjust for correct operation.

3. Complete installation of pre-cast terrazzo base and wooden base boards as required.

4. Clean, polish and apply preservative to all terrazzo floors.

5. Complete installation of electrical fixtures.

6. Complete mechanical room installation, install gas generator, color code all piping and install valve tags and directory. Check-out all mechanical equipment.

7. Complete fitting and installation of laboratory work tables, cabinets, etc., and complete connection of utilities to same.

8. Construct wooden partitions per Wyoming Team change orders.

9. Check out entire building, prepare "punch-list" and have contractor correct all deficiencies prior to turn-over of building and acceptance by owner.

Engineering Building:

Final check-out of building was made December 8 and "punch-list" of deficiencies prepared. Contractor is working on clean-up of listed items.

Electrical Distribution:

Only minor work remaining and check-out of system.

Roads and Walks:

Only minor work remaining and check-out of these items.

Sewage Treatment Plant:

1. Install comminutor, lift station pumps, piping and valves and other mechanical equipment and controls. Install chlorination equipment.

2. Check-out plant for correct operation, prepare "punch-list" of deficiencies and have contractor correct all deficiencies prior to turn-over of facility and acceptance by owner.

Water Supply:

Flush out and chlorinate entire system and make final check-out under working pressure from Demazang Reservoir.

General:

Water Supply:

The watermain for Kabul University is now connected to the west chamber of the Demazang Reservoir. After several inspections, it was agreed to fill the west chamber with 2.00 meters, or approximately 1,250 m 3 of water. The 300 m/m ϕ watermain is connected 1.00 meter above the floor slab as per Kabul Municipality instructions. This gives 625 m 3 of water for Kabul University.

As pointed out to the Municipality of Kabul, the Ministry of Public Works and Kabul University in the month of June, Report No. 39, the west chamber of the Demazang Tank badly needs repair work.

Punch List of Deficiencies and Acceptance:

1. Engineering Building:

On 8 December PA&E carried out an inspection per request of the contractor Hochtief. PA&E found many items which needed correction; List of Deficiencies was submitted to the contractor Hochtief and US AID, Kabul. On 15 December another inspection was made and several small items still needed correction. The Engineering Building will be ready for final acceptance about 20 January, 1964.

2. Library:

The contractor Hochtief asked for acceptance of the Library on 19 December. PA&E went thru the building and gave the contractor Hochtief notice that the building was not ready. PA&E inspected the building on 23 December and submitted a List of Deficiencies to the contractor with a copy going to US AID, Kabul.

Following is a overall construction progress chart to the end of December 1963.

Item No.	Item	Total US $ per Item	% Component per Bldg. Item	% Completed per Bldg. Item	Weighted % of Items For Over-all Construction	Weighted % of Items Complete of Construction	$ Amount Approved per Item as of Dec. 31, '63	% Component Complete
1	800 Student Dormitory							
2	Excavation & Concrete.	1,168,841.00	38.93	38.93	14.75	14.75	1,168,841.00	100.00
3	Masonry	80,952.00	2.70	2.70	1.02	1.02	80,952.00	100.00
4	Roofing	99,202.00	3.30	3.30	1.25	1.25	99,202.00	100.00
5	Windows & Doors	497,769.00	16.58	16.41	6.28	6.22	492,791.00	99.00
6	Plastering & Terrazzo	68,774.00	2.29	2.29	0.87	0.87	68,774.00	100.00
7	Interior Finish	367,845.00	12.25	11.11	4.64	4.21	333,442.00	90.65
8	Heating & Plumbing	455,951.00	15.18	15.11	5.76	5.73	453,671.00	99.50
9	Electrical Work	189,362.00	6.31	5.80	2.39	2.20	174,213.00	92.00
10	Equipment	73,944.00	2.46	2.21	0.94	0.84	66,500.00	89.93
	Sub-Total:	3,002,640.00	100.00	97.86	37.90	37.09	2,938,386.00	
11	Adm. & Classroom Bldg.							
12	Excavation & Concrete	495,277.00	37.52	37.52	6.25	6.25	495,277.00	100.00
13	Masonry	26,250.00	1.99	1.99	0.33	0.33	26,250.00	100.00
14	Roofing	82,924.00	6.28	6.28	1.05	1.05	82,924.00	100.00
15	Windows & Doors	162,424.00	12.31	12.18	2.05	2.03	160,800.00	99.00
16	Plastering & Terrazzo	54,825.00	4.15	4.15	0.69	0.69	54,825.00	100.00

Item No.	Item	Total US $ per Item	% Component per Bldg. Item	% Completed per Bldg. Item	Weighted % of Items For Overall Construction	Weighted % of Items Complete of Construction	$ Amount Approved per Item as of Dec. 31, '63	% Component Complete
	(Cont'd)							
17	Interior Finish	121,863.00	9.23	8.64	1.54	1.44	113,979.00	93.53
18	Heating & Plumbing	183,907.00	13.93	13.86	2.32	2.31	182,987.00	99.50
19	Electrical Work	138,668.00	10.51	9.67	1.75	1.61	127,575.00	92.00
20	Equipment	53,829.00	4.08	3.55	0.68	0.59	46,915.00	87.16
	Sub-Total:	1,319,967.00	100.00	97.84	16.66	16.30	1,291,532.00	
21	Library							
22	Excavation & Concrete	203,333.00	38.40	38.40	2.57	2.57	203,333.00	100.00
23	Masonry	14,078.00	2.66	2.66	0.18	0.18	14,078.00	100.00
24	Roofing	42,440.00	8.02	8.02	0.53	0.53	42,440.00	100.00
25	Windows & Doors	41,716.00	7.88	7.88	0.52	0.52	41,716.00	100.00
26	Plastering & Terrazzo	33,814.00	6.39	6.39	0.43	0.43	33,814.00	100.00
27	Interior Finish	47,458.00	8.96	8.96	0.60	0.60	47,458.00	100.00
28	Heating & Plumbing	84,753.00	16.01	16.01	1.07	1.07	84,753.00	100.00
29	Electrical Work	57,654.00	10.89	10.89	0.73	0.73	57,654.00	100.00
30	Equipment	4,214.00	0.79	0.79	0.05	0.05	4,214.00	100.00
	Sub-Total:	529,460.00	100.00	100.00	6.68	6.68	529,460.00	

Item No.	Item	Total US $ per Item	% Component per Bldg. Item	% Completed per Bldg. Item	Weighted % of Items For Overall Construction	Weighted % of Items Complete of Construction	$ Amount Approved per Item as of Dec. 31, '63	% Component Complete
31	Science-Agriculture Bldg.							
32	Excavation & Concrete	166,096.00	23.30	23.30	2.10	2.10	166,096.00	100.00
33	Masonry	14,746.00	2.07	2.07	0.19	0.19	14,746.00	100.00
34	Roofing	39,736.00	5.57	5.57	0.50	0.50	39,736.00	100.00
35	Windors & Doors	85,767.00	12.03	11.79	1.08	1.06	84,052.00	98.00
36	Plastering & Terrazzo	10,004.00	1.40	1.40	0.12	0.12	10,004.00	100.00
37	Interior Finish	70,693.00	9.91	9.32	0.89	0.84	66,488.00	94.05
38	Heating & Plumbing	97,353.00	13.65	13.59	1.23	1.22	96,866.00	99.50
39	Electrical Work	44,322.00	6.22	5.91	0.56	0.53	42,106.00	95.00
40	Equipment	184,306.00	25.85	23.20	2.33	2.09	165,445.00	89.77
	Sub-Total:	713,023.00	100.00	96.15	9.00	8.65	685,539.00	
41	Engineering Bldg.							
42	Excavation & Concrete	199,247.00	36.74	36.74	2.51	2.51	199,247.00	100.00
43	Masonry	8,270.00	1.52	1.52	0.10	0.10	8,270.00	100.00
44	Roofing	45,117.00	8.32	8.32	0.57	0.57	45,117.00	100.00
45	Windows & Doors	44,083.00	8.13	8.13	0.56	0.56	44,083.00	100.00
46	Plastering & Terrazzo	9,142.00	1.69	1.69	0.12	0.12	9,142.00	100.00

Item No.	Item	Total US $ per Item	% Component per Bldg. Item	% Completed per Bldg. Item	Weighted % of Items For Over-all Construction	Weighted % of Items Complete of Construction	$ Amount Approved per Item as of Dec. 31, '63	% Component Complete
	(Cont'd)							
47	Interior Finish	75,412.00	13.91	13.91	0.95	0.95	75,412.00	100.00
48	Heating & Plumbing	95,547.00	17.62	17.62	1.21	1.21	95,547.00	100.00
49	Electrical Work	45,620.00	8.41	8.41	0.58	0.58	45,620.00	100.00
50	Equipment	19,873.00	3.66	3.66	0.25	0.25	19,873.00	100.00
	Sub-Total:	542,311.00	100.00	100.00	6.85	6.85	542,311.00	..
51	Sewage Treatment Plant							
52	Chlorination Bldg.	3,157.00	3.82	3.82	0.04	0.04	3,157.00	100.00
53	Lift Station	7,164.00	8.66	8.23	0.09	0.09	6,806.00	95.00
54	Process Structure	35,815.00	43.32	43.32	0.45	0.45	35,815.00	100.00
55	Mechanical Work	24,764.00	29.96	23.96	0.31	0.25	19,811.00	80.00
56	Electrical Work	4,967.00	6.01	5.71	0.06	0.06	4,719.00	95.01
57	Exterior Utilities	6,803.00	8.23	8.15	0.09	0.08	6,735.00	99.00
	Sub-Total:	82,670.00	100.00	93.19	1.04	0.97	77,043.00	
58	Yard Work							
59	Roads, Walks & Paving	84,500.00	21.60	21.60	1.07	1.07	84,500.00	100.00
60	Electrical Utilities	98,621.00	25.20	20.03	1.24	0.99	78,399.00	79.50

em o.	Item	Total US $ Per Item	% Component Per Bldg. Item	% Completed Per Bldg. Item	Weighted % of Items For Over-all Construction	Weighted % of Items Complete of Construction	$ Amount Approved Per Item as of Dec. 31, 63	% Component complete
1	(Continued) Water Main & Sewer Line	208,168.00	53.20	53.20	2.63	2.63	208,168.00	100.00
	Sub-Total:	391,289.00	100.00	94.83	4.94	4.69	371,067.00	
2	Mob., Demob., Eq. Rental and Etc.							
	Sub-Total:	1,341,536.68	100.00	90.98	16.93	15.40	1,220,569.00	90.98
	Grand Total:	7,922,898.68			100.00	96.63	7,655,907.00	

In January 1964, construction in the Dormitory was in general carpentry work, spray varnishing of student desks and wardrobes and final electrical work.

In the Administration and Classroom Building, installation of electrical fixtures, final carpentry work, mainly in the auditorium and miscellaneous work was being completed.

In the Library, cleaning up -"punch-list" - items.

In the Agriculture Building, final pipefitting for laboratory equipment, electrical wiring and fixture installation and clean up work.

During this month, Kabul experienced its most severe snow fall and temperature drop of many years, with a local snow fall of over one meter and minimum temperature of -28 degrees centigrade. This resulted in some delay in finishing up work as city roads were closed and workers did not report; also, what personnel did report, were engaged in clearing roofs. The severe weather continued thru January and the first part of February, with intermittent heavy snow falls and freezing temperatures. This resulted in some damage to the mechanical system in the gymnasium. Shortage of fuel and piping system were not drained during shut-up; therefore, the mechanical system was frozen in. This damage resulted from lack of trained personnel to take care of this system, and it should emphasize the importance of a maintenance program. Although all installed equipment is guaranteed for one year, it is possible that negligence and careless handling may void any claims of damage.

In February 1964, PA&E suspended payment due to the contractor in order to check out all deficiencies against balance due. On the 24th of February, the Library was turned over to officials of Kabul University. A Certificate of Acceptance was made out, including a complete list of installed equipment.

During the month of March, all buildings were inspected and a "punch-list" was made out prior to final acceptance.

Certificates of Acceptance were given to US AID and Kabul University as follows:

Dormitory wing A and B	March 5, 1964
Agriculture Building	March 5, 1964
Dormitory wing C and D	March 16, 1964
Administration and Classroom Building	March 18, 1964
Dormitory - Main Building	March 18, 1964

Grading and Utilities	March 26, 1964
Certificate of Final Acceptance	March 28, 1964

All Certificates of Acceptance, all buildings, were made out, including a complete list of installed equipment, test reports and minor deficiencies. All certificates are attached.

During the months of March, April and May 1964, the contractor was correcting deficiencies as listed in the Certificate of Acceptance.

In April 1964, the university was occupied, and classes resumed. It is pointed out that Phase II, inspection for building of Kabul University, has been completed.

During the month of May, the university activity was in full swing. All buildings were occupied and the kitchen and dining facilities in the Dormitory were in full operation, feeding up to 1200 students. The writer made constant inspection of all buildings and related facilities and advised Afghan University officials in the operation. With the help of the Writer, a model maintenance program was set up to cover the mechanical aspects. The maintenance program at this time was still not adequate.

During the construction period it is estimated that from the maximum of 2,500 Afghan laborers employed on this project, at least 1,000 of them improved their skill in all construction trades. Of this figure, about 60 to 70, especially in the mechanical and electrical field, have obtained, according to local standards, an excellent skill, and have worked as foremen supervising groups of up to 20 laborers. It has been observed by the Writer that the quality of work produced by laborers and skilled workmen has greatly improved during this four year period. Afghan workmen, who have worked under supervision of European craftsmen, as on the university project, have had valuable on-the-job training that will be most useful in other projects in Afghanistan. They have also had training in the use of tools and equipment which up to the last few years have not been commonly used in Afghanistan.

With regard to the four Afghan engineering students supplied by the Ministry of Public Works, I do not feel this training program was as effective as it should have been. The gap between training and a project as involved as Kabul University requires a much more thorough background in engineering principles than the students had mastered. Also, as they were not directly under our control, there were periods of absence or irregular attendance. After two months, one student returned to the Afghan Institute of Technology for further preparation; after four months, two students were sent abroad for further education in the engineering field. The last architectural student was with PA&E thru March 1963, when the contract was re-negotiated. I do feel that this student benefitted from the training and showed a marked improvement.

During the period of construction, it was pointed out several times that a good maintenance program should be put into effect to protect this property. As ownership has been assumed by the Royal Government of Afghanistan, the Writer hereby submits all papers, plans and studies relative to this construction.

Please be assured of my continued interest in this project and wherever possible, assistance in this transition period. While there have been many obstacles to the completion of this university, it has given me great satisfaction to see the finished product of our joint effort, and the many side benefits of technical training received by Afghan personnel during this 45 month's construction period.

The following incompleted work as listed in the Certificate of Acceptance was completed in April and May, 1964.

Dormitory:

1. Repair of expansion joints.
2. Repair of drains, down spouts.
3. Reglaze windows completed.
4. Finish work on fuel storage tank, including plumbing and manhole covers.
5. Walk-in refrigerators were tested and accepted.
6. All large and small window screens were installed.
7. Touch-up paint and small amount of refinish work completed.

Administration and Classroom Building:

1. Glass window was installed in Room 1056, part "B".
2. Repair of expansion joints completed.
3. Repair of drains and down spouts completed.
4. Reglaze windows completed.
5. Finish work on fuel storage tank, including plumbing and manhole covers.
6. Acoustic tile ceiling was corrected.
7. Installation of screens for roof louvers and large and small screens for windows completed.
8. All work in the Auditorium of the Administration and Classroom building was completed, except the panel board for stage and auditorium lighting to be corrected. Coffee maker and electric hot plate were provided by the contractor, and installed as per drawings.

Library:

1. Correct glass for library arrived; however, was not installed, as this glass will be used for additional show cases when fabricated by the university. (This was done at the request of the university).
2. Wooden baseboard for Room 119 was replaced and accepted.
3. Bell caps of lighting fixture hangers in Main Reading Room have been adjusted but still need additional work.

Agriculture Building:

1. Parging the face of exterior brickwall at the classroom wing was modified and pre-cast concrete curbstone, extending six inches above finish grade, was placed on exposed brickwall.

2. Touch-up painting - exterior of building - was completed.
3. Bulbs for fluorescent fixtures in fume hood were installed.

Engineering Building:

1. Work on all drafting t bles completed.
2. Table arm chairs arrived at jobsite and were placed.
3. Extra work on skylight was checked after heavy rainfall. It appears that correction has been successful. One skylight window h d leaks, and will be corrected. Extra skylights have been provided by the contractor.

Sewage Treatment Plant:

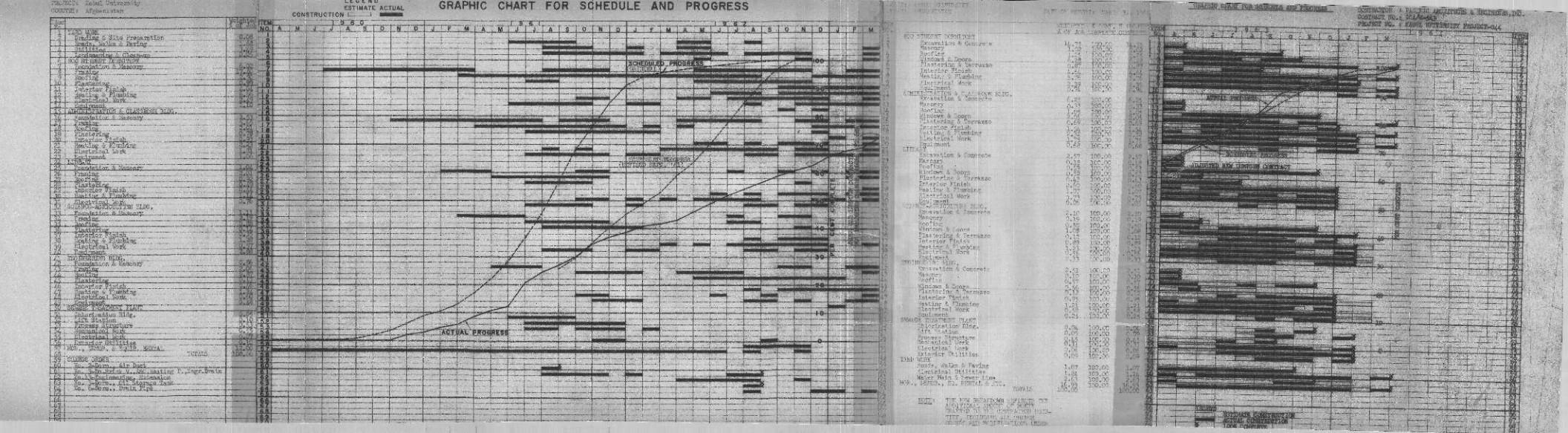
Work on the Sewage Treatment Plant has been completed, but the system has not been tested functionally. Water connection to the city water system has not been made to this date; however, water line has been laid.

General:

1. All terrazzo floors all buildings have been resurfaced and refinished.
2. After testing kitchen equipment, several small mechanical defects were noted and corrected.
3. Yard wall for the Library (exposed bricks on top) were replaced with pre-cast concrete cover.
4. Work on program and fire alarm system for all buildings is now in progress.
5. After receiving water from the Demazang city reservoir, plumbing system, all buildings, has been adjusted for full water pressure.
6. Several locks on doors, all buildings, have been adjusted or are in the process of adjustment.

Work Remaining and Being Corrected is as Follows:

1. Refinish part of roof over dining area in the Dormitory in order to provide proper drainage.
2. Open and refinish air bubbles on roof of Administration and Classroom Building, Library, and Engineering Building; also repair of roof flashings and ventilators.
3. Refinish several sections of concrete slab for covered walkway of the Administration and Classroom Building.
4. Install pre-cast concrete casing for steam boiler in the kitchen of the Dormitory.
5. Install proper fuses and adjust panel board for stage and auditorium lighting for the Administration and Classroom Building.
6. Install proper fuses for the Sewage Treatment Plant.
7. Small adjustment on doors, windows, equipment - all buildings - for smoother operation.
8. Complete telephone system and related installation as per Contract nesa 59.


GRAPHIC CHART FOR SCHEDULE AND PROGRESS
LEGEND
ESTIMATE ACTUAL
CONSTRUCTION
SCHEDULED PROGRESS
ACTUAL PROGRESS
1960
1961
1962
100
90
80
70
60
50
40
30
20
10
0

BEST AVAILABLE

FINAL REPORT PART II - CHANGE ORDERS

PACIFIC ARCHITECTS & ENGINEERS, INC.
CONTRACT ICA/W 543
KABUL UNIVERSITY PROJECT 044

During the construction period change orders were written by Pacific Architects and Engineers for the Royal Government of Afghanistan as follows:

CHANGE ORDERS

ange Order	Date	Approved	Description	U.S.A.I.D. $	R.G.A. $	Total $	Remarks
o. 1 Part 1	19 Jan. 61	-	Modification Electrical (Utilities)	Superseded by Change Order No. 4			-
o. 1 Part II	23 Mar. 61		Deletion of two (2) 110/15 KV Sub-Station	Superseded by Change Order No. 4			-
o. 2	27 Feb. 61	USAID & RGA	Fresh air-duct for the Dormitory (Mechanical Room)	253.10	621.69	874.79	nesa 59
o. 3	12 Apr. 61	USAID & RGA	1. Revision to .125 brick walls Dormitory	198.88	569.52	768.40	nesa 59
			2. French drain around Engineering Building	292.05	2,758.25	3,050.30	-
			3. Add. of concrete pipe trenches in Parts A,B,C & D, Adm. and Classroom Building	1,631.50	4,329.75	5,961.25	-
o. 4	30. Oct. 61	USAID & RGA	Electrical installation for Kabul University	Additional cost for additional equipment has not been determined.			Additional equipment not in nesa 59.
o. 4a	31 Mar. 63		Telephone System			-	nesa 59
o. 5	1 Nov. 61	USAID & RGA	Additional fuel storage tanks for Dormitory	13,096.00	14,121.00	27,217.00	nesa 59
o. 6	20 Sep. 61	USAID & RGA	Drain pipes for dormitory	1,995.00	1,934.30	3,929.30	nesa 59
. 7	1 Nov. 61	USAID & RGA	Roof insulation for Dormitory, Adm. & Cl. Bldg., Library, Agriculture Bldg., Engr. Bldg.	40,030.00	64,309.00	104,339.00	nesa 59
o. 8	25 Sep. 61	Request Proposal	Water softener for the Dormitory	Estimated 3.000.00			Rewritten for nesa 59 on 31 Mar. 63

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ıange Order	Date	Approved	Description	U.S.A.I.D. $	R.G.A. $	Total $	Remarks
ɔ. 9 Part I	11 Apr. 62	USAID	Equipment for Laboratories, Agriculture Building (Pending approval of RGA)	7,766.00	3,965.00	11,731.00	Re-written for nesa 59 28 Mar. 63
ɔ. 9 Part II	3 Jun. 62	USAID	Partition, fixture and equipment changes, Agri. Bldg., Engr. Bldg., and Library (Pending approval of RGA)	1,396.00	2,399.00	3,797.00	Re-written for nesa 59 28 Mar. 63
ɔ. 10	3 Jun. 62	USAID	Curtain rods for shower stalls and thirty-two (32) prayer sinks for student toilets in Dormitory	3,639.00	9,685.00	13,324.00	Cancelled
ɔ. 11	29 May 62	USAID	Sight screens between all urinals all buildings.	1,930.00	2,830.00	4,760.00	Cancelled
ɔ. 12	29 Oct. 61	USAID	Sidewalks and Service Drives (Pending further discussion)	Sidewalks reduced width from 4.00 m to 2100 m (MC-1 & RC-2 materials as per change order No. 22).			Re-Written for nesa 59 31 Mar. 63
ɔ. 13	15 Apr. 62	USAID	Engineering Bldg. - extension and hydraulic tank Pending approval of RGA.	6,588.00	10,572.00	17,160.00	Re-written for nesa 59 28 Mar. 63
ɔ. 14	1 Nov. 61	USAID & RGA	Flyscreen, Adm. and Clr. Bldg. and Engr. Building	9,124.00	3,109.00	12,233.00	nesa 59
ɔ. 15	29 Jul. 62	USAID	Re-design of roads		34,017.00	34,017.00	Cancelled
ɔ. 16	29 May 62	USAID	Electric driven gas generators for Agric. Bldg. and Engr. Bldg. (Pending approval of RGA)	1,970.00	1,361.00	3,331.00	nesa 59
ɔ. 17	1 Aug. 62	USAID	Monolithic Floor Finish with Colorcron (Pending approval of RGA)	4,759.40	37,609.20	42,368.60	nesa 59

ange Orders	Date	Approved	Description	U.S.A.I.D. $	R.G.A. ¢	Total $	Remarks
. 18	4 Oct. 62	USAID	Additional chalk boards and bulletin boards (Pending approval of RGA)	1,670.00	859.00	2,529.00	Cancelled
. 19	13 Nov. 62	USAID	Water Supply: water main direct to Demazang Tank	10,549.30	12,356.70	22,906.00	nesa 59
. 20	20 Mar. 63	-	Roof Insulation: vapour barriers for all buildings and fasteners for sloping roofs	-	-	49,576.00	nesa 59
. 21	31 Mar. 63	-	Painting all buildings; interior and exterior not included in original contract.	20,384.00 - 556.50 19,827.50	(Decrease for color wax) 45,619.00	65,446.50	nesa 59
. 22	25 Nov. 62	-	A. Construct Service Drive "A". B. Re-design road surface	Decrease 15,200.00 (Against original contract)	7,708.36	7,708.36	nesa 59
. 23	20 Mar. 63	-	Base boards for all buildings	1,464.00	605.00	7,068.00	nesa 59
. 24	-	-	Projection Screen with Dustproof Projedtion Box	645.00	210.00	855.00	Cancelled
. 25	31 Mar. 63	-	Prosoenium Curtain for Auditorium	-	-	-	nesa 59
. 26	24 Mar. 63	-	Modification in Chancellor and Vice-Chancellor's Office	-	-	3,800.00	nesa 59

All change orders were described in detail by PA&E.

On 2 April 1963 when the new contract was signed between the United States of America and Hochtief, change orders Nos. 2, 3, 4, 5, 6, 7, and 14 were incorporated into the old contract. Amount for these change orders totals $158,373.04 ($66,620.53 for the RGA and $91,752.51 for US AID).

Change orders Nos. 9 part 1 and part 2, 13, 15, 16, 17, 18, and 19 in the total amount of $137,839.60 ($103,138.90 for the RGA and $34,700.70 for US AID), had been approved by US AID on or before 2 April 1963; however, RGA had not submitted their approval.

Change orders Nos. 10 and 11 were cancelled by the RGA, and after receiving such notification were also cancelled by US AID.

On 2 April 1963, the following change orders were incorporated into the new lump sum contract (nesa 59) between the United States of America and Hochtief: Change orders Nos. 2, 3, 4, 4a, 5, 6, 7, 8, 9, part I and II, 12, 13, 14, 16, 17, 19, 20, 21, 22, 23, 25, and 26.

Change orders Nos. 4a, 8, 20, 21, 22, 23, 25, and 26 were added during the time of re-negotiation of the contract, by the team from Washington D. C. and Pacific Architects and Engineers. Change orders Nos. 18 and 24 were cancelled during this time of re-negotiation. These forementioned change orders were originated as construction progressed by US AID consultants, US AID Contract teaching teams, officials from Kabul University and PA&E. In almost all instances, these changes were discussed in detail with all parties concerned.

From 2 April 1963 until the end of the construction period, the following change orders were added. Description and costs follow in full:

I A: Dated 1 August 1963, Location: Dormitory and Administration and Classroom Building

Description of work:

1. Construct in the kitchen (Room 112), of the Dormitory an office for the director of food services. This office will be located in the south-west corner of the kitchen adjacent to the trash room and the southern windows, Size of room will be approximately 8 feet by 10 feet, wood frame construction with glazing, approximately 3 feet, 4 inches above floor level to approximately 6 feet, 4 inches above floor level, including the door. The wood framing and door to be finished in oil paint. Wood framing to be secured with anchor bolts at the bottom and top. Hardware as obtainable in the local

bazar and approved by the Resident Engineer. Supply and install one open type 40 W fluorescent lighting fixture and one outlet.

2. Construct a women's toilet in the Dormitory, Room 107 adjacent to the grand lounge. Install 25 cm brick wall on line 24 E. Remove door D 19 and install this door in the concrete wall to the grand lounge. Provide louver in the bottom of the door. Supply and install wooden door in position previously occupied by D-19. Install 4 water closets with 12 cm brick partitions, plaster both sides, install 4 doors for the water closets with 12 cm brick partitions, plaster both sides, install 4 doors for the water closets with hardware. Install 2 lavatories, a dressing table with mirrors for four persons, 3.10 m long, 60 cm. deep with terrazzo top, and base under mirrors. Install terrazzo floor yellow tile 30 cm. by 30 cm. with terrazzo base. Women's toilet room to be finished in flat wall paint, semi-gloss. Provide wooden screen to block view from grand lounge. Height of screen to be 1.80 m. Mirrors at dressing table and lavatories to receive opaque globe-type lighting fixture. Install roof ventilator with electric motor. Roof flashing and fasteners shall be similar to that of roof ventilators installed in other parts of Dormitory. Lavatories to receive hot and cold water faucets. Plumbing to be tied into existing lines for Room 106. Install vent thru roof for soil piping.

3. In the Administration and Classroom Building, expand the Language Laboratory (Room 1056) from 20 to 48 spaces. Remove wooden partitions at north end of Room 1056 eliminating rooms 1058 and 1059. Install door between Room 1056 and Room 1055 adjacent to corridor. Centered between new door and exterior wall, in wall between Rooms 1056 and 1055, provide an opening seven feet wide by two and one half feet high, the bottom to be 41 inches from the floor. Construct wooden partitions of stud and plywood or similar construction along column line K. In this partition provide a door adjacent to corridor wall. Five feet from the corridor wall and parallel to it construct a wooden partition the same as above dividing the north portion of Room 1055 now divided. Provide a wooden door in this partition opposite existing door to corridor. In Room 1056 paint only girders and beams.

4. Erect a solid brick wall, dividing Room 1066 into two parts, along column line 40.

5. Construct a partition of wood frame and plywood, or similar construction to divide Room 1064 along column line 31. The partition will extend 10 feet from the corridor wall and 13 feet from the outside wall leaving a 12 foot by 6 foot 9½ inch opening between the two rooms thus formed.

For the aforementioned work, the contractor was paid the amount of $5,413.00.

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2A: Dated 13 August 1963, Location: Engineering Building

Description of work:

1. Install wood frame partitions, extending to the ceiling, construction as follows: Bottom plate, studs and bridging will be of 10 cm x 5 cm. stock. Bottom and top plates will be secured to concrete floor and ceiling by 13 mm Ø bolts x 14 cm. long set (bottom plate before colorcron finish is applied) @ 1.25 m l/c. Studs will be spaced @ 62.5 cm. o/c. Bridging will be spaced @ 83 cm. o/c. Facing of partitions will be of 1 cm. thick chipboard, both sides. Doors will be of wood construction and framing around openings will be coupled. Location of partitions will be as follows:

a. Room 122: On column line B between column lines 3 and 4; on column line B between column lines 4 and 5, leaving a space of 54" adjacent to column B-4; on column line 4 between column lines B and C with a door adjacent to column C-4.

b. Room 123: On column line B between column lines 5 and 6 with a door adjacent to column B-6.

c. Room 124: On column line 7 with one door adjacent to column C-7.

d. Room 125: One column line 8 with one door adjacent to column A-9 and one door adjacent to column C-9.

e. Room 127: On column line B between column lines 12 and 13: on column line 13 between column lines B and C with a double door adjacent to column C-13.

2. Install wood frame partitions, 7 feet high of similar construction to partitions previously described, in the following locations:

a. Room 122: Four feet south of column line 4 between column lines B and C with a door adjacent to column line C; 4 feet east of column line B between column lines 4 and 5 with a door at column B-4 and a door through existing wall on column line 5 into room 123.

3. Remove steel mesh partitions from rooms 126 and 127 and re-install in room 125 along column line B between column lines 9 and 10 with door one panel away from column B-9 and in room 128A with door one panel away from column B-16.

4. Where steel mesh partitions are removed from rooms 126 and 127, replace with brick walls and new doors in same relative locations.

5. From air compressor furnished by others, and located in Mechanical Room 144, install 1 inch compressed air line adjacent to existing pipes and terminating in storage room of Room 124. Tees with plugs will be installed as follows: Room 129; 1 near column line 20 and 1 near column line 17; Room 128A, 1 near column line 17; Room 128, 1 near column line 16 and 1 near column line 14; Room 127, 1 near column line 10 and 1 near column line 14; Room 126, 1 near column line 12; Room 125, 1 near column line 8 and one at terminal of line.

6. Construct a leaching cess pool for storage chemical disposal on other side of parking lot from building opposite Room 124, and slightly south of column line 7. Construct a manhole adjacent to building on same line and connect the two with 20 cm. concrete pipe (for vitrified clay if available) underneath the parking lot.

7. Convert the coat rooms of Rooms 122, 124, 126, 127, 128, and 129 into storage and work rooms by completing the brick partitions and installing doors in the north end between these rooms and the main rooms. Doors are to be of wood construction with louvers at top and bottom and with a glass pane below the upper louver. Hardware will be locally procured. Coat hanging bars and shelves, as per original drawings, will be furnished, but not installed.

All wood partitions, doors, etc., will receive clear varnish finish.

For the above described work the contractor was paid in the amount of $9,691.00.

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3A: Dated 4 September, 1963, Location: Library

Description of work:

The sink originally intended for Room 121 will be

installed instead in Room 119 (now designated "Repair Room) adjacent to the brick wall of the Darkroom. Piping for the Darkroom sink will be utilized for connection.

For the above described work the contractor was paid in the amount of $85.00.

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4A: Dated 7 October 1963, Location: Agriculture Building

Description of work:

In Room 111 install a wooden partition on line No. 9 to divide room into two parts.

In Room 110 install a wooden partition to enclose the northeast quarter of the room. Partition will be eight feet high and a door will be placed at the inside corner of the west wall.

These wooden partitions will be constructed similar to those described in Change Order No. 2-A, dated 13 August 1963.

The locker sections in Room 122 through 131 will be installed without being fixed so that they may be moved if so desired by the occupants at some future time.

For the above described work the contractor was paid in the amount of $555.00.

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The foregoing report completely covers all change orders for the Kabul University.

FINAL REPORT PART III - MATERIAL

PACIFIC ARCHITECTS AND ENGINEERS, INC.
CONTRACT ICA/W 543
KABUL UNIVERSITY PROJECT 044

During the construction period of Kabul University which started with the signing of the contract on 7 January 1960, thru to May 1964, 13,705 tons of imported material arrived at the jobsite.

The breakdown of imported materials is given in four phases as follows:

I. From the first shipment until the border closed between Afghanistan and Pakistan on 6 September 1961:

Cement	5618 tons
Reinforced Steel	1331 tons
Mechanical Items	146 tons
Electrical Items	19 tons
Underground Cable	16 tons
Paint (various)	30 tons
Furnishings	9 tons
Bituminous for Roofs	14 tons
Roofing Felt	20 tons
Miscellaneous Material	24 tons
TOTAL	7227 tons

II. The 60-day period between 29 January 1962 and 29 March 1962 when the border between Afghanistan and Pakistan was opened for clearing US AID materials:

Cement	2196 tons
Reinforced Steel	153 tons
Mechanical Items	330 tons
Watermain	62 tons
Bituminous for Roofs	84 tons
Roofing Felt	76 tons
Steel Doors, Windows and Glass	79 tons
Miscellaneous Items	798 tons
TOTAL	3779 tons

III. At the end of June 1962, US AID granted permission to the contractor Hochtief A. G. to ship materials via Iran. Imported materials arrived as follows:

Cement	400 tons
Reinforced Steel	119 tons
Mechanical Items	346 tons
Watermain	114 tons
Electrical Items	144 tons
Underground Cable	76 tons
Paints (Various)	96 tons
Furnishings	103 tons
Cork Insulation for Roofs	81 tons
Bituminous for Roofs	109 tons
Roofing Felt	198 tons
Steel Doors, Windows and Glass	469 tons
Miscellaneous Items	361 tons
TOTAL	2616 tons

IV. In September 1963 orders were issued by the contractor Hochtief to re-route remaining material thru the original route via Pakistan.

Mechanical Items	21 tons
Electrical Items	26 tons
Paint (Various)	10 tons
Furnishings	3 tons
Miscellaneous Items	23 tons
TOTAL	83 tons

In addition to the four phases listed above, approximately 60 tons of material arrived by Hochtief trucks from Essen, Germany, direct to Kabul. Two hundred and ninety five tons of Afghan cement were brought from the Ghori factory in Afghanistan, approximately 100 miles from Kabul. Materials needed for construction, such as form lumber, wood for furnishings, bricks and cut stone, were procured locally in Kabul, and concrete block, sewage pipes, curbstones, and terrazzo were fabricated locally, using imported cement from Pakistan and Iran. The aggregate for concrete and road work was produced locally in Kabul.

Under the terms of the new contract, nesa 59, signed on 2 April, 1963, US AID supplied the contractor Hochtief with 2,060 drums of RC 2 asphalt and 860 drums of MC 1 asphalt for road construction, and 1,500 bags of white cement. The contractor made payment to US AID of 11.07 Afghanis and 25.92 Pak Rupees for each drum of RC 2 asphalt, 11.14 Afghanis and 25.69 Pak Rupees for each drum of MC 1 asphalt and 2.79 Afghanis and 12.19 Pak Rupees for each bag of white cement.

Materials, in approximate percentages, were imported from the following countries:

Item	Country	Per Cent
Electrical	W. Germany	90
"	U.S.A.	10
Mechanical	W. Germany	85
"	U.S.A.	15
Furniture	Local	45
"	U.S.A.	35
"	Italy	20
Paint	W. Germany	100
Colorcron wax	U.S.A.	100
Reinforcing Steel	W. Germany	100
Cement	Pakistan	76
"	Iran	14
"	Local	10
Kitchen Equipment	W. Germany	98
" "	U.S.A.	2
Windows, Doors	England	100
Glass	W. Germany	100
Cork for Roofing	Portugal	100
Felt and Bituminous for Roofs	India	60
" " "	Iran	40
Asphalt	U.S.A.	100
Hardware	U.S.A.	85

FINAL REPORT APPENDIX I - FINANCIAL

PACIFIC ARCHITECTS AND ENGINEERS, INC.
CONTRACT ICA/W 543
KABUL UNIVERSITY PROJECT 044

On the 7th of January 1960, the contract between the Ministry of Public Works, Royal Government of Afghanistan and Hochtief A. G. was signed for the construction of Kabul University, in the grand total contract amount of $6,958,645.00.

In May 1960 the contractor Hochtief made the following cost estimates distributing the above contract amount over buildings and related facilities and costs as follows:

General Items	$ 684,862.00
Dormitory	2,712,651.00
Administration and Classroom Bldg.	1,065,383.00
Library	441,222.00
Agriculture Building	643,204.00
Engineering Building	443,695.00
Sewage Treatment Plant	95,060.00
Siting, Grading and Utilities	375,828.00
Electrical (Exterior and Interior)	496,740.00
Grand Total Contract Amount.	$6,958,645.00

In December 1960, or seven months after the first cost estimates were made, the contractor Hochtief made necessary adjustments to his estimates as follows:

General Items	$ 834,862.00
Dormitory	2,692,651.00
Administration and Classroom Bldg.	1,060,383.00

Library	$ 421,222.00
Agriculture Building	613,204.00
Engineering Building	423,695.00
Siting, Grading and Utilities	325,828.00
Sewage Treatment Plant	90,060.00
Electrical (Exterior and Interior)	496,740.00
Grand Total Contract Amount	$6,958,645.00

Pacific Architects and engineers examined this schedule, found it to be in order, and approved it as a basis for scheduling progress payments to the contractor Hochtief.

By the end of December 1960 a total amount of $173,966.00 had been approved by PA&E for progress payments to the contractor; in July 1961 this had increased to $1,683,992.00, and at the end of December 1961 a total amount of $2,692,497.15 had been approved in progress payments to the contractor for work in place on the above facilities.

In September 1961, the Writer was put in charge of PA&E Kabul University project, and upon assuming responsibility for this work, set up detailed cost records to chart progress of contractor and cost distribution.

A monthly cost breakdown of progress payments made to the contractor Hochtief for the year 1962 is as follows:

January	$ 147,228.86
February	76,798.72
March	103,815.50
April	186,301.83
May	228,254.43
June	176,035.15
July	155,121.68
August	177,349.25
September	161,183.55
October	141,565.57
November	110,026.04
December	235,048.91
Total Progress Payments for 1962	$1,898,729.49
Total Progress Payments before 1962	2,692,497.15
Grand Total Progress Payments to the contractor thru 30 December, 1962	$4,591,226.64

In addition to the preceding amount, by the end of December 1962, change orders in the amount of $158,373.04 had been approved by US AID and RGA. Of this amount of $158,373.04, $53,315.74 had been approved as progress payments, representing work incorporated into the building.

In December 1962, PA&E submitted cost breakdown and percentage record of progress on Kabul University as follows:

Item	Estimated Cost	Amount Paid As Of 31 December 1962	Percentage Complete
General Items	$ 834,862.00	$ 724,851.89	86.79
Dormitory	2,692,651.00	1,961,511.90	72.84
Adm. & Clr. Bldg.	1,060,383.00	690,185.11	65.09
Library	421,222.00	286,675.22	68.06
Agriculture Bldg.	613,204.00	250,984.89	40.93
Engineering Bldg.	423,695.00	218,172.05	51.48
Sit. G. & Util.	325,828.00	201,189.41	61.75
S. T. Plant	90,060.00	43,039.67	47.79
Electrical	496,740.00	214,616.50	43.20
Contract Amount	6,958,645.00	4,591,226.64	65.98
Change Orders (approved as of 31 Dec., 1962)	158,373.04	53,315.74	33.66
TOTALS:	$7,117,018.04	$4,644,542.38	65.25

In March 1963, PA&E balanced out all sums paid out to the contractor in relation to progress and percentage complete as follows: Interim period 31 December 1962 to 31 March 1963.

Month	Approved Progress Payments	Approved Change Orders
Jan. '63	$141,994.48	$ 982.32
Feb '63	103,804.43	...
Mar. '63	220,599.01	785.87
TOTALS:	$466,397.92	$1,768.19

Amount approved for construction of Kabul University was as follows:

Grand Total Contract Amount	$6,958,645.00
Approved for Construction Progress Payment	$5,057,624.56
Percentage Complete	72.69
Approved Change Orders	$ 158,373.04
Approved for Construction Progress Payment	55,083.93
Percentage Complete	34.78
Grand Total Including All Change Orders	$7,117,018.04
Approved for Construction Including Change Orders	$5,112,708.49
Percentage Complete Including Change Orders	71.84

Through 31 March 1963, the Contractor Hochtief A. G. had received payments as follows:

From the Royal Afghan Government:

Afghanis	121,212,000.00	=	$2,693,600.00
Dollars	$1,000,000.00	=	1,000,000.00
Pakistan Rupees	428,400.00	=	90,000.00
	TOTAL:		$3,783,600.00
From US AID by PIO/C's:			2,316,663.38
	TOTAL RECEIVED:		$6,100,263.38
Approved for Construction & Progress:			5,112,708.49
	DIFFERENCE:		$ 987,554.89

The difference in the amount of $987,554.89 represents materials on hand or on order and not incorporated into the construction

Of the $3,783,600.00 paid to the contractor by the RGA thru the 31st of March, 1963, payments were as follows:

Through to the end of 1960:

Afghanis	26,548,000.00	=	$ 589,953.34
Dollars	$700,000.00	=	700,000.00
Pakistan Rupees	428,400.00	=	90,000.00
TOTAL:			$1,379,953.34

The following payments were made in Afghanis:

31 January, 1961	6,000,000.00
31 March, 1961	6,000,000.00
15 April, 1961	450,000.00
30 April, 1961	6,000,000.00
30 May, 1961	6,000,000.00
10 June, 1961	6,000,000.00
17 July, 1961	6,000,000.00
1 August, 1961	6,000,000.00
6 September, 1961 . . .	3,500,000.00
TOTAL AFGHANIS . . .	45,950,000.00

To the 6th of September 1961, the contractor had received:

Afghanis	72,498,000.00	=	$1,611,066.65
Dollars	$700,000.00	=	700,000.00
Pakistan Rupees	428,400.00	=	90,000.00
TOTAL:			$2,401,066.65

On 11 September, 1961, an additional $300,000.00 was paid to the contractor.

Dollars	$700,000.00	=	$ 700,000.00
	+300,000.00	=	+300,000.00
Afghanis	72,498,000.00	=	1,611,066.65
Pakistan Rupees	428,400.00	=	90,000.00
TOTAL:			$2,701,066.65

After 11 September 1961, the following payments were made in Afghanis:

8 October, 1961	6,000,000.00
21 November, 1961	6,000,000.00
10 January, 1962	4,500,000.00
12 March, 1962	4,500,000.00
24 April, 1962	4,500,000.00
3 June, 1962	4,500,000.00
18 July, 1962	4,500,000.00
5 September, 1962	6,000,000.00
18 October, 1962	4,500,000.00
TOTAL AFGHANIS	46,000,000.00

A summary of the amount received to the end of December 1962 is as follows:

Afghanis	118,498,000.00	=	$2,633,288.98
Dollars	$1,000,000.00	=	1,000,000.00
Pakistan Rupees	428,000.00	=	90,000.00
TOTAL:			$3,723,288.98

An additional sum of money was paid in Afghanis on 28 January, 1963.

(To the end of 1962, Balance Forward)	2,714,000.00 118,498,000.00
Total:	121,212,000.00

Total payment from January 1960 thru March 1963:

Afghanis	121,212,000.00	=	$2,693,600.00
Dollars	$1,000,000.00	=	1,000,000.00
Pakistan Rupees	428,400.00	=	90,000.00
Grand Total:			$3,783,600.00

On 2 April, 1963, due to extenuating circumstances, the contract for the construction of Kabul University was re-negotiated. A new lump sum contract (nesa 59) was signed between the United States and Hochtief granting additional time and sums as follows for this construction:

Afghanis, 18,500,000. (trust fund)	=	$ 410,000.00
Dollars		6,100,263.38
Additional Dollars by US AID		975,000.00
Balance of PIO/C's		412,633.30
Telephone System (Upon Acceptance)		25,000.00
Lump Sum Contract Amount nesa 59 2 April, 1963		$7,922,896.68

Change Orders Nos. 1A, 2A, 3A, and 4A in the total amount of $15,749.00 were incorporated into nesa 59, bringing the contract amount to:

	$7,922,896.68
Change Orders	15,749.00
Grand Total Including Change Orders	$7,938,645.68

Of the preceding total on Page 60, the RCA contributed:	$3,783,600.00
	410,000.00
	$4,193,600.00
US AID contributed:	$2,729,296.68
	975,000.00
	25,000.00
	15,749.00
	$3,745,045.00

Excess PIO/C's in the amount of $432,258.27 were returned to US AID in two checks; $208,054.95 and $224,203.32.

The new contract nesa 59 extended the time to complete the university, until February 1964. The total sum of the new contract (exclusive of change orders 1A thru 4A) is as follows:

New Contract	$7,922,896.68
Old Contract	-6,958,645.00
Additional Funds Granted:	$ 964,251.68

Under the original contract, the contractor received PIO/C's in the amount of $2,316,663.38
Under the new contract, . . . 412,633.30

Total PIO/C's $2,729,296.68

The number and amount of PIO/C's is as follows:

Number	Amount
70646	$250,000.00
70649	948,900.00
00127	965,000.00
70657	129,600.00
10146	301,147.00

10192	$ 183,853.00
70653	80,000.00
70666	198,054.95
70668	105,000.00
TOTAL PIO/C's	$3,161,554.95
Amount Returned to US AID	432,258.27
TOTAL PIO/C's	$2,729,296.68

The amendments and breakdown for Commodity Code No. for each PIO/C after final revision is as follows:

PIO/C No. 70646

Code No.	Amount
390	$ 243.00
620	96.00
660	4,150.00
680	26,000.00
720	298.00
740	105,830.00
750	13,300.00
780	42,243.00
820	52,000.00
891	1,900.00
892	3,940.00
GRAND TOTAL:	$250,000.00

PIO/C No. 70649

Code No.	Amount
390	$ 13,000.00
570	4,900.00
620	50,000.00
640	90,000.00
660	593,000.00
700	100,000.00
899	98,000.00
GRAND TOTAL:	$948,900.00

PIO/C No. 00127

Code No.	Amount
390	$ 30,000.00
570	2,000.00
640	50,000.00
660	272,000.00
690	35,000.00
700	476,000.00
899	100,000.00
GRAND TOTAL:	$965,000.00

PIO/C No. 70657

Code No.	Amount
570	$ 18,000.00
660	87,500.00
693	6,000.00
899	18,100.00
GRAND TOTAL:	$129,600.00

PIO/C No. 10146

Code No.	Amount
390	$ 11,510.00
570	107,255.00
621	42,160.00
640	27,651.00
660	10,438.00
690	21,864.00
779	31,652.00
881	13,937.00
890	2,680.00
899	32,000.00
GRAND TOTAL:	$301,147.00

PIO/C No. 10192

Code No.	Amount
570	$ 1,200.00
640	14,700.00
660	107,518.00
690	21,000.00
700	20,000.00
881	1,000.00
899	18,385.00
GRAND TOTAL:	$183,853.00

PIO/C No. 70653

Code No.	Amount
640	$80,000.00
GRAND TOTAL:	$80,000.00

PIO/C No. 70666

Code No.	Amount
570	$ 15,000.00
660	108,000.00
890	30,000.00
899	20,054.95
GRAND TOTAL:	$173,054.95

PIO/C No. 70668

Note: Funds for this PIO/C No. have been provided by reducing the original PIO/C No. as follows:

PIO/C No.	Original	Final	For PIO/C 70668
70649	$ 988,900.00	$948,900.00	$ 40,000.00
70666	208,054.95	173,054.00	35,000.00
00127	1,000,000.00	965,000.00	35,000.00
10146	321,147.00	301,147.00	20,000.00
Code No. 940			$130,000.00

PIO/C No. 70668 was decreased from $130,000.00 to $105,000.00 or $25,000.00.

PIO/C No. 70672

PIO/C No. 70672 in the amount of $25,000.00 (see No. 70668), was established as follows:

Code No.	Amount
570	$15,000.00
700	4,000.00
899	6,000.00
GRAND TOTAL:	$25,000.00

It was cancelled in its entirety and added to PIO/C No. 70666.

Final PIO/C No. 70666

Code No.	Amount
570	$ 30,000.00
660	108,000.00
890	34,000.00
899	20,054.95
GRAND TOTAL:	$198,054.95

Adjustment was made to the PIO/C and two checks were returned to US AID from the contractor Hochtief as follows:

1.	From PIO/C 70649:	$221,351.54
	From PIO/C 00127:	2,851.78
		$224,203.32
2.	From PIO/C 70646:	208,054.95
	GRAND TOTAL RETURNED:	$432,258.27

The balance due of PIO/C's at the end of the contract was as follows:

PIO/C No.	Amount
70668	$22,524.16
70649	66.22
70657	69.76
10146	47.40
70666	3,576.91
00127	5.57
TOTAL:	$26,290.02

Contractor Hochtief received this amount by check under a new PIO/C, Number 70678.

At the time the new contract was signed, it was necessary to make cost adjustments to reflect additional payments granted to the contractor. Total construction cost of $7,922,896.68 was distributed over the items as follows:

General Items	$1,341,536.68
Dormitory	3,002,640.00
Administration & Classroom Bldg.	1,319,967.00
Library	529,460.00
Agriculture Building	713,023.00
Engineering Building	542,311.00
S. G. Utility & S. T. Plant	473,959.00
Grand Total Contract Amount	$7,922,896.68

Comparing the old contract to the new contract, cost differences were distributed as follows: (Including electrical work which was incorporated into the building).

Item	New	Old	Difference
General Item	$1,341,536.68	$ 834,862.00	$506,674.68
Dormitory	3,002,640.00	2,866,013.26	136,626.74
Adm. & Clr. Bldg.	1,319,967.00	1,187,051.70	132,915.30
Library	529,460.00	473,876.44	55,583.56
Agriculture Bldg.	713,023.00	652,943.20	60,079.80
Engineering Bldg.	542,311.00	465,421.16	76,889.84
S.G. Util. & S.T. Pl.	473,959.00	478,477.24	(+) 4,518.24
GRAND TOTAL:	$7,922,896.68	$6,958,645.00	$964,251.68
Change Orders Approved Under Old Contract		(+) 158,373.04	(-) 158,373.04
GRAND TOTAL:	$7,922,896.68	$7,117,018.04	$805,878.64

At the end of March 1963, percentage complete was:

$$\frac{\$5,112,708.49 \times 100}{7,117,018.04} = 7184 \text{ per cent}$$

As of 2 April, per new contract percentage complete was:

$$\frac{\$5,112,708.49 \times 100}{7,922,896.68} = 64.47 \text{ per cent}$$

Progress payments for 1963, April thru December, were as follows:

April	$334,157.51
May	276,948.00

June	$ 281,450.00
July	301,869.00
August	332,109.00
September	527,669.00
October	199,593.00
November	135,209.00
December	154,194.00
Total:	$2,543,198.51
Approved for construction thru March 1963	5,112,708.49
Grand total approved thru end of 1963	$7,655,907.00

In January 1964, $109,238.00 was approved for progress payment. In February 1964, no progress payment was approved, as PA&E wanted to check payments due against balance of work left to be completed on the university. Therefore, the financial status of this project as of the end of February 1964 was:

Progress Payments:	$7,662,896.68
Change Orders 1A Thru 4A:	15,749.00
Total:	$7,677,645.68

On 28 March 1964, final certificate of acceptance for construction of Kabul University was issued to US AID and contractor Hochtief A. G.

In April 1964, final payment of $235,000.00 was made to the contractor Hochtief as per contract:

Total payment received by contractor Hochtief A. G.:	$7,897,896.68
For Change Orders	15,749.00
Total:	$7,913,645.68

Total Contract Amount (nesa 59) (Including Change Orders 1A thru 4A)	$7,938,645.69
Amount Received	-7,913,645.68
Balance Due	$ 25,000.00

Balance Due to be paid Hochtief A. G. upon completion and acceptance of the telephone system, as per contract.

In accordance with contract nesa 59 signed on 2 April 1963, payments to the contractor, Hochtief were as follows:

Paid to Contractor	$3,783,600.00
PIO/C's	2,729,296.68
Afghanis (18,500,000.00)	410,000.00
Thirty Days after April 1963	500,000.00
$30,000.00 the First Day of June, July, August, September, October, November, December 1963, and January, 1964	240,000.00
Upon Acceptance by the Resident Engineer of all Buildings and Facilities	235,000.00
Total:	$7,897,896.68
Upon Acceptance of Telephone System	25,000.00
Grand Total Contract Amount	$7,922,896.68

PACIFIC ARCHITECTS & ENGINEERS, INC.
CONTRACT ICA/W 543
KABUL UNIVERSITY PROJECT 044

March 30, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Certificate of Final Acceptance

In accordance with contract A.I.D. nesa 59, dated 2nd day of April 1963, between the United States of America, represented by the Agency for International Development (A.I.D.) and Hochtief Aktiengesellschaft fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann, Pacific Architects and Engineers, Inc. hereby issues this final Certificate of Acceptance of the Kabul University as per contract.

Certificates of Acceptance (per building) were issued to U.S.A.I.D. Kabul as follows:

1. Dormitory Main Building - March 18, 1964
2. Dormitory Wing "A" & "B" - March 5, 1964
3. Dormitory Wing "C" & "D" - March 16, 1964
4. Administration and Classroom Building - March 18, 1964
5. Library - February 10, 1964
6. Agriculture Building - March 5, 1964
7. Engineering Building - January 21, 1964
8. Grading and Utilities - March 26, 1964

All buildings and utilities as listed were turned over to Kabul University Administration during the months of February and March 1964. Certificates of Acceptance for each of the facilities carried list of minor deficiencies, which are now being corrected, or will be corrected as per contract agreement.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 18, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Submitted herein is a Certificate of Acceptance for Main Building, as designated on engineering drawing, of the Dormitory Building, Kabul University, including as an appliance to this certificate are:

1) List of incompleted work.

2) List of installed equipment.

3) Test reports for mechanical and electrical systems.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 18, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Certificate of Acceptance

In accordance with "Article V - Acceptance of Work" of contract between the United States of America, represented by the Agency for International Development (A.I.D.) and Hochtief Aktiengesellschaft fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann dated 2nd day of April 1963, Pacific Architects and Engineers, Inc. hereby issues this certificate for the acceptance of Main Building of the Dormitory.

Pacific Architects and Engineers, Inc. as per contract with U.S.A.I.D., have inspected & accepted the work other than incompleted as noted, as being completed in accordance with the design drawings, change orders and specifications and ready for occupancy by authorities of Kabul University representing the Royal Government of Afghanistan.

Pacific Architects and Engineers, Inc. therefore recommend that the keys to all installed appliances equipped with locks be accepted by the Agency for International Development (A.I.D.) to be turned over to Kabul University Administration authorities.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

1) List of Incompleted Work, Main Building, Dormitory, Kabul University:

Exterior to be completed because of climatic conditions include:

a) Repair of roof flashing, ventilators and air venting.
b) Repair of expansion joints.
c) Repair of tension cracks.
d) Repair of drains, down-spouts and drainage systems.
e) Refinish exterior facings.
f) Reglaze windows.
g) Complete finish of fuel storage tanks, plumbing and manhole covers.
h) Complete test of walk-in refrigerators.
i) Thirteen (13) fire alarm controls missing.
k) Seventeen (17) large and one hundred and twelve (112) small screens to be installed.
l) Thirty (30) defective mirrors, sixty (60) mirrors have been ordered as replaces in providing for the one (1) year warranty.

Operational Notes:

1) Due to the intermittent water service to the University it is recommended that every precaution is taken to ensure adequate service affected equipment.

2) Due to the fluctuation of electrical power to the University it is recommended that every precaution is taken to allow for the affected equipment to function normally.

The equipment is designed to shut-off when over or underloaded and any attempt to manually continue service is unwarranted.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

DM-1

2) List of Installed Equipment, Main Building, Dormitory, Kabul University:

Ground Floor

Description	Quantity
Room 01, Gameroom:	
Incandescent lighting fixture (with 1 bulb ea.)	56
Fluorescent lighting fixture (with 4 bulbs ea.)	16
Exit light	2
Room 02, Storage:	
Incandescent lighting fixture (with 1 bulb ea.)	18
Room 03, Mechanical Room:	
Fluorescent lighting fixture (with 2 bulbs ea.)	19
Main electrical panelboard	1
Room 04, Storage Area:	
Fluorescent lighting fixture (with 2 bulbs ea.)	7
Incandescent lighting fixture (with 1 bulb ea.)	1
Fire alarm box	1
Fire alarm bell	1
Fire alarm lamp	2
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Electric panelboard	1
Telephone box	1
Room 05, Refrigeration:	
Incandescent lighting fixture (with 1 bulb ea.)	1
Room 06, Refrigeration:	
Incandescent lighting fixture (with 1 bulb ea.)	1
Room 07, Garbage:	
Incandescent lighting fixture (with 1 bulb ea.)	1
Room 08, Can Wash:	
Incandescent lighting fixture (with 1 bulb ea.)	1
Room 09, Study Room:	
Fluorescent lighting fixture (with 2 bulbs ea.)	24
Exit light	1

Description	Quantity
Entrance to Study Room:	
Incandescent lighting fixture (with 1 bulb ea.)	2
Room 10, Study Room:	
Fluorescent lighting fixture (with 2 bulbs ea.)	24
Exit light	1
Entrance to Study Room:	
Incandescent lighting fixture (with 1 bulb ea.)	2
Stairwell 81:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Exit light	1
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Fire alarm box	1
Fire alarm bell	1
Fire alarm lamp	2
Stairwell 82:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Exit light	1
Fire hose cabinet, complete with hose and nozzle and hand opsrated extinguisher	1
Fire alarm box	1
Fire alarm bell	1
Fire alarm lamp	2
Stairwell 83:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Exit light	1
Stairwell 84:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Exit light	1
Entrance to Mechanical Room:	
Incandescent lighting fixture (with 1 bulb ea.)	2
Room 93, Toilet Mechanical Room:	
Shower, complete with hot and cold water faucet	1
Watercloset, complete with seat and flush valve	1

Description	Quantity
Lavatory, complete with hot and cold water faucet	1
Incandescent lighting fixture (with 1 bulb ea.)	1
Incandescent lighting fixture, wall mtd. (with 1 bulb ea.)	1
Mirror, wall mtd.	1
Toilet paper holder	1
Corridor 76:	
Fluorescent lighting fixture (with 1 bulb ea.)	14
Electric panelboard	1
Corridor 79:	
Fluorescent lighting fixture (with 1 bulb ea.)	14
Electric panelboard	1
Room 101, Grand Lounge and Lobby:	
Incandescent lighting fixture (with 4 bulbs ea.)	29
Exit light	2
Fire alarm bell	1
Fire alarm box	1
Fire alarm lamp	1
Electric Panelboard	1
Drinking fountain	1
Room 102, Living and Dining:	
Incandescent lighting fixture (with 1 bulb ea.)	9
Fluorescent lighting fixture (with 1 bulb ea.)	6
Room 103, Bedroom:	
Wardrobe	2
Dressing Table (with cabinet)	1
Mirror, wall mtd.	1
Fluorescent lighting fixture (with 1 bulb ea.)	5
Room 104, Closet:	
Incandescent lighting fixture (with 1 bulb ea.)	1
Electric panelboard	1
Room 105, Kitchen:	
Fluorescent lighting fixture (with 2 bulbs ea.)	1
Counter with counter sink, complete with hot and cold water faucet	1
Electric stove, complete	1
Refrigerator, 8 cu/ft.	1
Cabinet, wall mtd.	1

Description	Quantity
Room 106, Bath Room:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Bathtub, complete with hot and cold water faucet	1
Hold bar for bathtub	1
Watercloset, complete with seat and flush valve	1
Toilet paper holder	1
Lavatory, complete with hot and cold water faucet	1
Mirror, wall mtd.	1
Fluorescent lighting fixture, wall mtd. (with 1 bulb ea.)	1
Room 107, Sec'y. Reception Office:	
Fluorescent lighting fixture (with 2 bulbs ea.)	8
Toilet for Women (Addition):	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Incandescent lighting fixture (with 1 bulb ea.)	6
Dressing table	1
Mirror, wall mtd.	6
Lavatory, complete with hot and cold water faucet	2
Watercloset, complete with seat and flush valve	4
Toilet paper holder	4
Telephone box	1
Room 108, Mail & Office:	
Fluorescent lighting fixture (with 2 bulbs ea.)	8
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Fire alarm lamp	1
Room 109, Service:	
Fluorescent lighting fixture (with 2 bulbs ea.)	6
Counter, complete with windows	3
Room 110, Dry Cleaning:	
Fluorescent lighting fixture (with 2 bulbs ea.)	8
Entrance between Room 108, 109, 110:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 111, Dining Room:	
Incandescent lighting fixture (with 4 bulbs ea.)	14
Incandescent lighting fixture (with 1 bulb ea.)	60

Description	Quantity
Cup and saucer cabinet, automatic dispenser, stainless steel	2
Coffee urn, stainless steel	2
Urn stand, stainless steel	2
Water cooler, stainless steel	2
Cafeteria tray truck	2
Room 112, Kitchen:	
Fluorescent lighting fixture (with 2 bulbs ea.)	25
Incandescent lighting fixture (with 1 bulb ea.)	7
Electric panelboard	1
Fire alarm box	1
Fire alarm bell	1
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Fire alarm lamp	2
Vegetable peeler	1
Vegetable sink w/drainboard	1
Pan rack	2
Work table	6
Meat slicer	1
Meat chopper	1
Cook's sink, complete	4
Mixer (30 Quart)	1
Butcher's block	1
Work table	2
Scullery sink w/drain board	1
Range	4
Fry kettle	2
Oven	1
Steam jacketed kettle	2
Vegetable steamer	1
Walk-in refrigerator	2
Ice cream chest	2
Flat top shelving	2
Cold pan	2
Steam table	2
Flat top shelving	2
Griddle	2
Toaster	2
Mixer (80 Quart)	1
Proof box	2
Bake oven	1
Rack	2
Dumbwaiter	1
Freight elevator	1
Sink, complete with hot and cold water faucet	1

All installed kitchen equipment, steam, refrigeration and electrical are listed under mechanical and electrical for test reports.

Description	Quantity
Room 113, Office:	
Incandescent lighting fixture (with 1 bulb ea.)	1
Room 113A, Storage:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Room 114, Dish Wash:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Dishwasher, complete w/steam generator	1
Roller tables	3
Sink	2
Garbage can	1
Room 115, Study Room:	
Fluorescent lighting fixture (with 2 bulbs ea.)	24
Room 116, Study Room:	
Fluorescent lighting fixture (with 2 bulbs ea.)	24
132, Corridor:	
Fluorescent lighting fixture (with 2 bulbs ea.)	14
185, Corridor:	
Fluorescent lighting fixture (with 2 bulbs ea.)	14
187, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Exit light	1
Fire alarm bell	1
Fire alarm box	1
Fire alarm lamp	2
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
188, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Exit light	1
Fire alarm bell	1
Fire alarm box	1
Fire alarm lamp	2
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Electric panelboard	1

Description	Quantity
169, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Exit light	1
190, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Exit light	1
273, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Exit light	1
Fire alarm bell	1
Fire alarm box	1
Fire alarm lamp	2
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
274, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Exit light	1
Fire alarm bell	1
Fire alarm box	1
Fire alarm lamp	2
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
275, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Exit light	1
268, Corridor:	
Fluorescent lighting fixture (with 1 bulb ea.)	14
Electric panelboard	1
271, Corridor:	
Fluorescent lighting fixture (with 1 bulb ea.)	14
Electric panelboard	1
Room 301, Upper Lounge:	
Incandescent lighting fixture (with 1 bulb ea.)	44
Incandescent lighting fixture (with 4 bulbs ea.)	18
Drinking fountain	1
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Fire alarm lamp	1

Description	Quantity
Room 201, Study Room:	
Fluorescent lighting fixture (with 2 bulbs ea.)	24
Room 202, Study Room:	
Fluorescent lighting fixture (with 2 bulbs ea.)	24
374, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Fire alarm box	1
Fire alarm bell	1
Fire alarm lamp	2
Exit light	1
375, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Fire hose cabinet, complete and hose and nozzle and hand operated extinguisher	1
Fire alarm box	1
Fire alarm bell	1
Fire alarm lamp	2
Exit light	1
Electric panenboard	1
376, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Exit light	1
377, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Exit light	1
369, Corridor:	
Fluorescent lighting fixture (with 1 bulb ea.)	14
372, Corridor:	
Fluorescent lighting fixture (with 1 bulb ea.)	14
Room 302, Study Room:	
Fluorescent lighting fixture (with 2 bulbs ea.)	24

Description	Quantity
Room 303, Study Room:	
Fluorescant lighting fixture (with 2 bulbs ea.)	24
Exterior Light:	
North Terrace	
Incandescent lighting fixture (with 1 bulb ea.)	4
Incandescent lighting fixture (with 2 bulbs ea.)	3

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

3) Test Reports for Mechanical and Electrical Systems, Dormitory, Kabul University:

Mechanical Room 03:

1) 1 - Boiler w/Smoke Connections, relief and drainage accessories, Mfg. Eisenwerk-Baugmarte, Model #13581, tested and accepted in accordance with Spec., Pg. 30-02, Par. 28-21.

2) Burner Assembly:

1 - Burner, Mfg. Monarch, Type L7VZD, Model #70715 w/motor, Mfg. Weishaupt, Type D1.2.

1 - Control Console, Mfg. Weishaupt, Type PF304/50, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-15.

3) 1 - Boiler w/Smoke Connections, relief and drainage accessories, Mfg. Eisenwerk-Baumgarte, Model #13579, tested and accepted in accordance with Spec., Pg. 30-02, Par. 28-21.

4) Burner Assembly:

1 - Burner, Mfg. Monarch, Type L7VZD, Model #70716 w/motor, Mfg. Weishaupt, Type D1.2.

1 - Control Console, Mfg. Weishaupt, Type PF3D/4, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-08.

5) 1 - Boiler w/Smoke Connections, relief and drainage accessories, Mfg. Eisenwerk-Baumgarte, Model #13580, tested and accepted in accordance with Spec., Pg. 30-02, Par. 28-21.

6) Burner Assembly:

1 - Burner, Mfg. Monarch, Type L7VZD, Model #70714 w/motor, Mfg. Weishaupt, Type D1.2.

1 - Control Console, Mfg. Weishaupt, Type PF3D/4, tested and accepted in accordance with Spec., Pg 30-04, Par. 30-08.

7) 1 - Boiler w/Smoke Connections, relief and drainage accessories, Mfg. Eisenwerk-Baumgarte, Model #13578, tested and accepted in accordance with Spec., Pg. 30-02, Par. 28-21.

8) Burner Assembly:

1 - Burner, Mfg. Monarch, Type L7VZD, Model #70719 w/motor, Mfg. Weishaupt, Type D1.2.

1 - Control Console, Mfg. Weishaupt, Type PF3D/4, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-08.

9) Circulating Pumps:

a) 1 -, Mfg. Kaizer, Type K32W w/motor, Mfg. Schorch, Model #9100890/85.
b) 1 -, Mfg. Kaizer, Type K32W w/motor, Mfg. Schorch, Model #9121067/75.
c) 1 -, Mfg. Kaizer, Type DV97 w/motor, Mfg. Sche, Model #714/3.
d) 1 -, Mfg. Kaizer, Type DV31 w/motor, Mfg. Sche, Model #7148/2.
e) 1 -, Mfg. KSB, Type ETA 100/33G w/motor, Mfg. Siemens, Type 6/101/186/963/1, Model #R59N 6 IV.
f) 1 -, Mfg. KSB, Type ETA 100/33G, Model 6/101/186/963/1 w/motor, Mfg. Siemens, Type R59N 6 IV, Model #119750.
g) 1 -, Mfg. KSB, Type ETA 100/33G, Model #E 6/101/186/963/2 w/motor, Mfg. Siemens, Type R59N 6 IV, Model # E233976.
h) 1 -, Mfg. KSB, Type ETA 100/33G, Model #6/101/168/963/3 w/motor, Mfg. Siemens, Type R59N 6 IV, Model # E178447.
i) 1 -, Mfg. KSB, Type ETA 100/33G, Model # 6/101/168/4 w/motor, Mfg. Siemens, Type R59N 6 IV, Model # E233977.
j) 1 -, Mfg. KSB, Type ETA 80/33G, Model # 6/101/186/964/1 w/motor, Mfg. Siemens, Type R49S/6 IV, Model # E56065.

All pumps tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-15.

10) 4 - Hot Water Generators, Mfg. Bertrams, A.G., capacity 5,000 lieters, tested and accepted in accordance with Spec., Pg. 26-10, Par. 26-18.

11) Circulating Pumps (H. W. Generator):

a) 1 -, Mfg. Oplander, Type 30 Model #2217663 w/motor, Mfg. Siemens, Type AOR 99-4 IV, Model #12919246.
b) 1 -, Mfg. Oplander, Type 30, Model #2217661 w/motor, Mfg. Siemens, Type AOR 99-4 IV, Model #E12919S26.
c) 1 -, Mfg. Oplander, Type 30, Model #2020/18763 w/motor, Mfg. Siemens, Type AOR99-4 IV, Model #E12963801.
d) 1 -, Mfg. Oplander, Type 30, Model #2020/17659 w/motor, Mfg. Siemens, Type AOR99-4 IV, Model #E12919S26.
e) 1 -, Mfg. Oplander, Type 30, Model #2226356/6301 w/motor, Mfg. Siemens, Type 30, Model #E587051.

All pumps tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-15.

12) 1 - Water Softener, Mfg. Silaphos, Type 4", tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

13) 1 - Water Softener, Mfg. Silaphos, Type 3/4", tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

14) 1 - Refrigerator Compressor, Mfg. Linde, Type GL6V03AS, Model # MC869427, tested and accepted in accordance with Spec., Pg. 29-08, Par. 29-27.

15) 1 - Refrigerator Compressor, Mfg. Linde, Type J60FW, Model #1119, tested and accepted in accordance with Spec., Pg. 29-08, Par. 29-27.

16) Ventilating Unit:

a) 1 - Blower, Mfg. Rox, Type D2ZK/56, Model #7854 w/motor, Mfg. Siemens, Type AD 23/4, Model # 421329, tested and accepted in accordance with Spec., Pg. 28-08, Par. 28-17.
b) 1 - Blower, Mfg. Rox, Type D2ZK/50, Model #7855 w/motor, Mfg. Siemens, Type AD 34/4, Model # 421328, tested and accepted in accordance with Spec., Pg. 28-08, Par. 28-17.

Mechanical Equipment:

17) Rooms 05 and 06:

Walk-in refrigerators, tested and accepted in accordance with Spec., Pg. 29-08, Par. 29-27.

18) Freight Elevator (manual), Mfg. D.A. Motot, Model E, tested and accepted in accordance with ASTM and ASME codes governing safe loading and operation of elevator equipment.

19) Dumb Waiter (manual), Mfg. D.A. Motot, Model #GAB 3492, tested and accepted in accordance with ASTM and ASME codes governing safe loading and operation of elevator equipment.

20) Room 08:

1 - Can Washer, Mfg. Dean, Model #17597, tested and accepted in accordance with Spec., Pg. 26-15, Par. 26-33.

21) Room 07:

1 - Refrigerator, tested and accepted in accordance with Spec., Pg. 29-08, Par. 29-27.

22) Room 111:

2 - Water Cooler and Waitress Station units w/shelves, Mfg. Leitner, tested and accepted in accordance with Spec., Pg. 27-09, Par. 11.

23) 2 - Coffee Makers (steam), Mfg. Berman, tested and accepted in accordance with Spec., Pg. 27-18, Par. 27-08.

24) Room 112:

1 - Refrigerator, Mfg. Westinghouse, tested and accepted in accordance with Spec., Pg. 29-08, Par. 29-27.

25) 2 - Refrigerators (commercial), Mfg. McCall, tested and accepted in accordance with Spec., Pg. 29-08, Par. 29-27.

26) 1 - Ice Maker, Mfg. Carrier, Type 26H5-669A, Model #2157639, tested and accepted in accordance with Spec., Pg. 27-09, Par. 12.

27) 1 - Ice Maker, Mfg. Carrier, Type 26H5-669A, Model #1063523, tested and accepted in accordance with Spec., Pg. 27-09, Par. 12.

28) 1 - Dishwasher and Accessories w/ (2) stainless stl. sinks and (5) stainless stl. tables, including steam generator equipment, Mfg. Hobart-Martin, Model #538161, tested and accepted in accordance with Specs, Pg. 27-07, Par. 6 and Pg. 27-18, Par. 27-08.

29) 1 - Steam Cooker w/ (4) deep wells, Mfg. Voss, tested and accepted in accordance with Spec., Pg. 27-10, Par. (b).

30) 1 - Steam Oven w/trays, Mfg. Voss, Type 26E2405, Model #L5228/14, tested and accepted in accordance with Spec., Pg. 27-10, Par.(b).

31) 1 - Mixer w/accessories, Mfg. Alexanderwerk, tested and accepted in accordance with Spec., Pg. 27-11, Par. (16).

32) 1 - Mixer w/ (7) accessories, Mfg. Alexanderwerk, Model #6954, tested and accepted in accordance w/Spec., Pg. 27-11, Par. (16).

33) 2 - Steam Cookers w/accessories, Mfg. Voss, Type 2086, tested and accepted in accordance with Specs., Pg. 27-18, Par. (31) and Pg. 27-18, Par. 27-08.

34) 1 - Steam Oven w/accessories, Mfg. Voss, Type L522818, tested and accepted in accordance with Spec., Pg. 27-18, Par. (31).

35) 3 - Steam Cookers, 200 liters, Mfg. Voss, Type L5228/15A, 15B and 15C, tested and accepted in accordance with Spec., Pg. 27-18, Par. (31).

36) 1 - Meat Slicer, Mfg. Alexanderwerk, Type AS300, tested and accepted in accordance with Spec., Pg. 27-10, Par. (15).

37) 1 - Meat Grinder w/accessories, Mfg. Alexanderwerk, tested and accepted in accordance with Spec., Pg. 27-10, Par. (14).

38) 2 - Steam Cabinets, Mfg. Voss, tested and accepted in accordance with Spec., Pg. 27-18, Par. (31).

39) 2 - Portable Tray Racks, 8 Tiers, Mfg. Union Steel Prodc., Type R30.

40) 2 - Portable Tray Racks, 4 Tiers, Mfg. Buckseo.

41) 1 - Potato Washer and Peeler, Mfg. Alexanderwerk, tested and accepted in accordance with Spec., Pg. 27-17, Par. (30).

42) Convectors:

Wing "A" - Ground Floor

Item	Qty	Bestell Number
1	10	10/11/61 F
2	10	10/13/61 F
3	1	15/14/61 F
4	26	10/12/61 F
5	2	15/11/61 F
6	3	10/20 F

First Floor

7	21	10/11/61 F
8	1	15/13/61 F
9	1	15/14/61 F
10	27	10/12/61 F
11	3	10/20 F

Second Floor

12	21	10/11/61 F
13	1	15/13/61 F
14	1	15/14/61 F
15	27	10/12/61 F
16	3	10/20 F

Third Floor

17	6	10/13/61 F
18	27	15/10/61 F
19	1	15/14/61 F
20	14	15/11/61 F

Wing "B" - Ground Floor

21	10	10/11/61 F
22	10	10/13/61 F
23	1	15/14/61 F
24	26	10/12/61 F
25	2	15/11/61 F
26	3	10/20 F

First Floor

Item	Qty	Bestell Number
27	21	10/11/61 F
28	1	15/13/61 F
29	1	15/14/61 F
30	27	10/12/61 F
31	3	10/20 F

Second Floor

32	21	10/11/61 F
33	1	15/13/61 F
34	1	15/14/61 F
35	27	10/12/61 F
36	3	10/20 F

Third Floor

37	6	10/13/61 F
38	27	15/10/61 F
39	1	15/14/61 F
40	14	15/11/61 F

Wing "C" - Ground Floor

41	10	10/11/61 F
42	10	10/13/61 F
43	1	15/14/61 F
44	26	10/12/61 F
45	2	15/11/61 F
46	3	10/20 F

First Floor

47	21	10/11/61 F
48	1	15/13/61 F
49	1	15/14/61 F
50	27	10/12/61 F
51	3	10/20 F

Second Floor

52	21	10/11/61 F
53	1	15/13/61 F
54	1	15/14/61 F
55	27	10/12/61 F
56	3	10/20 F

Third Floor

Item	Qty	Bestell Number
57	6	10/13/61 F
58	27	15/10/61 F
59	1	15/14/61 F
60	14	15/11/61 F

Wing "D" - Ground Floor

61	10	10/11/61 F
62	10	10/13/61 F
63	1	15/14/61 F
64	26	10/12/61 F
65	2	15/11/61 F
66	3	10/20 F

First Floor

67	21	10/11/61 F
68	1	15/13/61 F
69	1	15/14/61 F
70	27	10/12/61 F
71	3	10/20 F

Second Floor

72	21	10/11/61 F
73	1	15/13/61 F
74	1	15/14/61 F
75	27	10/12/61 F
76	3	10/20 F

Third Floor

77	6	10/13/61 F
78	27	15/10/61 F
79	1	15/14/61 F
80	14	15/11/61 F

Main Building - Ground Floor

81	4	10/20 F
82	1	10/23 F
83	2	15/20 F

First Floor

84	2	10/19 F
85	3	10/20 F
86	2	15/09/81 F
87	6	15/17
88	1	15/20

First Floor - Cont'd

Item	Qty	Bestell Number
89	2	15/21
90	2	15/26
91	3	15/28

Grand Lounge

92	1	15/09/81 F
93	1	10/25 F
94	2	15/20 F
95	2	15/21 F
96	2	15/26
97	3	15/28

Upper Lounge

98	4	15/21
99	2	15/19

All convectors tested and accepted in accordance with Spec., Pg. 28-03, Par. 28-06.

43) 2 - Unit Heaters, Mfg. GEA, Model #304, tested and accepted in accordance with Spec., Pg. 28-04, Par. 28-07.

44) 1 - Sump Pump, Mfg. Hein-Jong, Model #DC450S, tested and accepted in accordance with Spec., Pg. 26-06, Par. 26-11.

45) Steam Condensate Receiver, tested and accepted in accordance with Spec., Pg. 30-09, Par. 30-19.

46) Steam Traps, tested and accepted in accordance with Spec., Pg. 30-11, Par. 30-22.

47) Pressure Relief Valve, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

48) Pressure Gage, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-20.

49) Thermometer, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-21.

50) Feed Water Regulator, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

51) Valves, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-13.

52) Control, tested and accepted in accordance with Spec., Pg. 30-08, Par. 30-17.

53) Strainer, tested and accepted in accordance with Spec., Pg. 30-11, Par. 30-23.

54) Test of Boiler System, tested and accepted in accordance with Spec., Pg. 28-08, Par. 28-17.

55) Test of Heater System, tested and accepted in accordance with Spec., Pg. 26-19, Par. 26-35.*

56) Pressure Gage, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

57) Valves, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-13.

58) Fire Protection Equipment, Mfg. Hoenig, Model # IS-V/SP-HFL, tested and accepted in accordance with Spec., Pg. 26-14, Par. 26-29.

59) Water Pipe, Fitting and Connections, tested and accepted in accordance with Spec., Pg. 26-07, Par. 26-12 and Pg. 26-19, Par. 26-35.

Plumbing System:

60) Soil, Waste, Drain & Vent Pipe, Fitting & Connections, tested and accepted in accordance with Spec., Pg. 26-03, Par. 26-05, Pg. 26-04, Par. 26-06, Pg. 26-05, Par. 26-08, Pg. 26-05, Par. 26-09, & Pg. 26-05, Par. 26-10.

61) Cleaning of the Hot Water System and Sterilization of Water Service System as outlined in Specs., Pg. 26-08, Subpar. (f) and Pg. 28-08, Par. 28-18.

Cleaning of Hot Water System and Sterilization of the Water Service System to be accomplished by introducing disenfecting solutions into the main water distribution system, allowing the entire system to be affected.

The Hot Water System should be fully operational** for at least 48 hours prior to introducing solutions into the system. Circulation of solution in system should cover a period of at least 48 hours as outlined in Spec., Pg. 28-08, Par. 28-18.

62) Ventilating System & Equipment, tested and accepted in accordance with Spec., Pg. 31-01.

* This circuit supplies the hot water requirements for the Rest Rooms.

** Fully operational, allowing the system to function as it would during normal operations.

63) Thermostatic Mixing Valves, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-15.

64) Food Service Equipment, tested and accepted in accordance with Spec., Pg. 27-18, Par. 27-08.

65) Refrigeration Equipment, tested and accepted in accordance with Spec., Pg. 29-08, Par. 29-27.

66) Boiler-room Equipment, tested and accepted in accordance with Spec., Pg. 30-16, Par. 30-35.

67) Ventilating System, mechanical and gravity, tested and accepted in accordance with Spec., Pg. 31-08, Par. 31-24.

Summary of Mechanical Specifications:

1) Tools*, operating and maintenance instructions are provided in accordance with Specs., Pg. 28-08, Par. 28-15 and Pg. 28-08, Par. 28-16. This equipment and instruction references will remain in the custody of the contractor for the duration of service warranty, as per contract agreement.

2) Cleaning and sterilization of water distribution system will be accomplished as described in Item 61.

3) Contractor's Liability for Good Workmanship:

The Contractor shall be responsible for good workmanship in the performance of this contract in accordance with the terms and conditions thereof. The Contractor shall be responsible for any losses, damages, or other expenses resulting from his failure to perform good workmanship or other requirements of this contract, and shall at its own expense repair any defects in the University facilities of which Contractor is given notice within one year of acceptance of such facilities and which are caused by faulty workmanship of Contractor's employees of faulty material, or by failure of Contractor to follow plans and specifications as modified by change orders and field changes approved by the Resident Engineer.

4) Data and references covered in this acceptance report have been compiled from approved data and references submitted by the Contractor and material described herein is effective this date, 18 March 1964.

* One set of tools including welding equipment will be furnished for complete maintenance program to be completed with final of University Project.

Electrical Equipment:

Room 112:

1) 1 - Electric Oven, Mfg. Voss, Type 30E2405/2, tested and accepted in accordance with Spec., Pg. 27-12, Par. 17 (a thru h).

2) 2 - Electric Ovens, Mfg. Voss, Type 30E2406/2, tested and accepted in accordance with Spec., Pg. 27-12, Par. 17 (a thru h).

3) 1 - Electric Deep Fry Range, Mfg. Voss, tested and accepted in accordance with Spec., Pg. 27-13, Par. 20.

4) 1 - Electric Grille, Open Range, Mfg. Voss, tested and accepted in accordance with Spec., Pg. 27-13, Par. 20.

5) 2 - Electric Toasters, Mfg. Savory, tested and accepted in accordance with Spec., Pg. 27-17, Par. 26.

6) 1 - Electric Stove, Mfg. Voss, tested and accepted in accordance with Spec., Pg. 27-14, Par. (b).

7) Motors and Controls, tested and accepted in accordance with Spec., Pg. 33-03, Par. 33-15 and are protected against voltage over and underloads.

8) Branch Circuits and Devices, tested and accepted in accordance with Spec., Pg. 33-08, Par. 33-13.

9) Switches, tested and accepted in accordance with Spec., Pg. 33-07, Par. 33-12.

10) Receptacles, tested and accepted in accordance with Spec., Pg. 33-07, Par. 33-11.

11) Outlets, Junction and Pull Boxes, tested and accepted in accordance with Spec., Pg. 33-06, Par. 33-10.

12) Wireways and Troughs, tested and accepted in accordance with Spec., Pg. 33-06, Par. 33-09.

13) Lighting, tested and accepted in accordance with Spec., Pg. 33-10, Pg. 33-16.

14) Test of Interior System, tested and accepted in accordance with Spec., Pg. 33-12, Par. 33-20.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 5, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Submitted herein is a Certificate of Acceptance for Wings "A" and "B", as designated on engineering drawing, of the Dormitory Building, Kabul University, including as an appliance to this certificate are:

1) List of incompleted work.

2) List of installed equipment.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 5, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Certificate of Acceptance

In accordance with "Article V - Acceptance of Work" of contract between the United States of America, represented by the Agency for International Development (A.I.D.) and Hochtief Aktiengesellschaft fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann dated 2nd day of April 1963, Pacific Architects and Engineers, Inc. hereby issues this certificate for the acceptance of Wings "A" and "B" of the Dormitory Building.

Pacific Architects and Engineers, Inc. as per contract with U.S.A.I.D., have inspected and accept the work other than incompleted as noted, as being completed in accordance with the design drawings, change orders and specifications and ready for occupancy by authorities of Kabul University representing the Royal Government of Afghanistan.

Pacific Architects and Engineers, Inc. therefore recommend that the keys to all installed appliances equipped with locks be accepted by the Agency for International Development (A.I.D.) to be turned over to Kabul University Administration authorities.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

1) List of Incompleted Work, Wings "A" and "B" Dormitory Building, Kabul University:

1) Exterior glazing of windows.

2) Repair of flashing, down-spouts roof ventilators and drains.

3) Repair of cracks, because of weather conditions and lack of fuel to heat these wings, the repair of cracks will be curtailed until weather permits.

4) Alarm system to be electrically connected at to master control.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

2) List of Installed Equipment, Wing "A" Dormitory, Kabul University:

Ground Floor:

Student's Unit Room 11, 12, 13, 14, 15, 16, 17:

Item	Description	Quantity
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 19, 20, 21, 22, 23:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 18, 24:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 89:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing Machine drain and connections	1

Linen Storage Room 67:

1.	Storage cabinet, w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 68:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

Item	Description	Quantity
1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

First Floor:

Student's Unit Room 117, 118, 119, 120, 121, 122, 123:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 125, 126, 127, 128, 129:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 124, 130:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 195:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory complete with hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 173:

Item	Description	Quantity
1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 174:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose and nozzle and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

Second Floor:

Student's Unit Room 203, 204, 205, 206, 207, 208, 209:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 211, 212, 213, 214, 215:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 210, 216:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 281:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5

Item	Description	Quantity
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1
	Linen Storage Room 259:	
1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1
	Storage Room 260:	
1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1
	Corridor:	
1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose and nozzle and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1
	Third Floor:	
	Student's Unit Room 304, 305, 306, 307, 308, 309, 310:	
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8
	Student's Unit Room 312, 313, 314, 315, 316:	
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8
	Student's Unit Room 311, 317:	
1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 382:

Item	Description	Quantity
1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 360:

1.	Storage Cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 361:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

Stairwell 3A:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	6

List of Installed Equipment, Wing "B" Dormitory, Kabul University:

Ground Floor:

Student's Unit Room 39, 40, 41, 42, 43, 44, 45:

Item	Description	Quantity
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 47, 48, 49, 50, 51:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 46, 52:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 91:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 72:

1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 71:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

Item	Description	Quantity
1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

First Floor:

Student's Unit Room 145, 146, 147, 148, 149, 150, 151:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 153, 154, 155, 156, 157:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 152, 158:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 197:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 178:

Item	Description	Quantity
1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 177:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

Second Floor:

Student's Unit Room 231, 232, 233, 234, 235, 236, 237:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 239, 240, 241, 242, 243:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 238, 244:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 283:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5

Item	Description	Quantity
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1
	Linen Storage Room 264:	
1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1
	Storage Room 263:	
1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1
	Corridor:	
1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1
	Third Floor:	
	Student's Unit Room 332, 333, 334, 335, 336, 337, 338:	
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8
	Student's Unit Room 340, 341, 342, 343, 344:	
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 339, 345:

Item	Description	Quantity
1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 384:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 365:

1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 364:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

Stairwell 3B:

1.	Fluorescent lighting fixture	6

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 16, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Submitted herein is a Certificate of Acceptance for Wings "C" and "D", as designated on engineering drawing, of the Dormitory Building, Kabul University, including as an appliance to this certificate are:

1) List of incompleted work.

2) List of installed equipment.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 16, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Certificate of Acceptance

In accordance with "Article V - Acceptance of Work" of contract between the United States of America, represented by the Agency for International Development (A.I.D.) and Hochtief Aktiengesellschaft fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann dated 2nd day of April 1963, Pacific Architects and Engineers, Inc. hereby issues this certificate for the acceptance of Wings "C" and "D" of the Dormitory Building.

Pacific Architects and Engineers, Inc. as per contract with U.S.A.I.D., have inspected and accept the work other than incompleted as noted, as being completed in accordance with the design drawings, change orders and specifications and ready for occupancy by authorities of Kabul University representing the Royal Government of Afghanistan.

Pacific Architects and Engineers, Inc. therefore recommend that the keys to all installed appliances equipped with locks be accepted by the Agency for International Development (A.I.D.) to be turned over to Kabul University Administration authorities.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

1) List of Incompleted Work, Wings "C" and "D" Dormitory Building, Kabul University:

1) Exterior glazing of windows.

2) Repair of flashing, down-spouts roof ventilators and drains.

3) Repair of cracks, because of weather conditions and lack of fuel to heat these wings, the repair of cracks will be curtailed until weather permits.

4) Alarm system to be electrically connected at to master control.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEIZ
Resident Engineer
Kabul University

2) List of Installed Equipment, Wing "C" Dormitory, Kabul University:

Ground Floor:

Student's Unit Room 25, 26, 27, 28, 29, 30, 31:

Item	Description	Quantity
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 33, 34, 35, 36, 37:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 32, 38:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 90:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 69:

1.	Storage cabinet, w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.	1

Storage Room 70:

Item	Description	Quantity
1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

First Floor:

Student's Unit Room 131, 132, 133, 134, 135, 136, 137:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 139, 140, 141, 142, 143:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 138, 144:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 196:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory complete with hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12

Item	Description	Quantity
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 175:

1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 176:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose and nozzle and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

Second Floor:

Student's Unit Room 217, 218, 219, 220, 221, 222, 223:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 225, 226, 227, 228, 229:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 224, 230:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 282:

Item	Description	Quantity
1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 261:

1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 262:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose and nozzle and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

Third Floor:

Student's Unit Room 318, 319, 320, 321, 322, 323, 324:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 326, 327, 328, 329, 330:

Item	Description	Quantity
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	3

Student's Unit Room 325, 331:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 383:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 362:

1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 363:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle and hand operated extinguisher	2

Item	Description	Quantity
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

Stairwell No. 3B:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	6

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

List of Installed Equipment, Wing "D" Dormitory, Kabul University:

Ground Floor:

Student's Unit Room 53, 54, 55, 56, 57, 58, 59:

Item	Description	Quantity
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 61, 62, 63, 64, 65:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 60, 66:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 92:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 74:

1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 73:

Item	Description	Quantity
1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

First Floor:

Student's Unit Room 159, 160, 161, 162, 163, 164, 165:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 167, 168, 169, 170, 171:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 166, 172:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 198:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12

Item	Description	Quantity
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1
	Linen Storage Room 180:	
1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1
	Storage Room 179:	
1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1
	Corridor:	
1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1
	Second Floor:	
	Student's Unit Room 245, 246, 247, 248, 249, 250, 251:	
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8
	Student's Unit Room 253, 254, 255, 256, 257:	
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8
	Student's Unit Room 252, 258:	
1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 284:

Item	Description	Quantity
1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 266:

1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 265:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

Third Floor:

Student's Unit Room 346, 347, 348, 349, 350, 351, 352:

1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type A complete	2
4.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 354, 355, 356, 357, 358:

Item	Description	Quantity
1.	Wardrobe w/mirror Type A complete	1
2.	Wardrobe w/mirror Type B complete	2
3.	Desk Type B complete	2
4.	Desk Type C complete	2
5.	Fluorescent lighting fixture (with 1 bulb ea.)	8

Student's Unit Room 353, 359:

1.	Wardrobe w/mirror Type B complete	1
2.	Desk Type C complete	1
3.	Fluorescent lighting fixture (with 1 bulb ea.)	2

Toilet Room 385:

1.	Watercloset, complete w/seat and flush valve	5
2.	Toilet paper holder	5
3.	Urinal, complete w/flush valve	4
4.	Lavatory, complete w/hot and cold water faucet	5
5.	Paper towel holder	1
6.	Mirror, wall mounted	5
7.	Service sink, metal w/hot and cold water faucet	1
8.	Service sink, terrazzo w/hot and cold water faucet	1
9.	Shower, w/hot and cold water faucet	6
10.	Hold bars for shower	12
11.	Soap dishes	11
12.	Cloth hooks	20
13.	Wooden benches	2
14.	Fluorescent lighting fixture (with 2 bulbs ea.)	2
15.	Fluorescent lighting fixture (with 1 bulb ea.)	13
16.	Washing machine drain and connections	1

Linen Storage Room 367:

1.	Storage cabinet w/sliding doors	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Storage Room 366:

1.	Open storage, shelf unit	1
2.	Fluorescent lighting fixture (with 2 bulbs ea.)	1

Corridor:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	15
2.	Exit light	1
3.	Red fire lamp	3
4.	Fire hose cabinet complete w/hose, nozzle, and hand operated extinguisher	2

Item	Description	Quantity
5.	Drinking fountain	1
6.	Fire alarm bell	2
7.	Fire alarm switch	1

Stairwell No. 3A:

1.	Fluorescent lighting fixture (with 1 bulb ea.)	6

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 18, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Submitted herewith is Certificate of Acceptance for the Administration and Classroom Building, Kabul University.

Also submitted are the following:

A. List of uncompleted work.

B. List of installed equipment.

C. Test reports for electrical and mechanical systems.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 18, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Certificate of Acceptance

In accordance with "Article V - Acceptance of Work" of contract between the United States of America, represented by the Agency for International Development (A.I.D.) and Hochtief Aktiengesellschaft fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann dated 2nd day of April, 1963, Pacific Architects and Engineers, Inc. hereby issue this certificate for the Administration and Classroom Building.

Pacific Architects and Engineers, Inc. as per contract between PA&E and U.S.A.I.D., have inspected the Administration and Classroom Building and accept the work as being completed in accordance with the design drawings, change orders and specifications and ready for occupancy by the Kabul University representing the Royal Government of Afghanistan.

Pacific Architects and Engineers, Inc. therefore recommend that the keys to the Administration and Classroom Building be accepted by the Agency for International Development (A.I.D.) to be turned over to the Kabul University Administration.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

A. List of Incompleted Work, Administration and Classroom Building, Kabul University:

1) Telephone system, clocking and programing system and fire alarm system are installed but can not be tested for final correct operation until switchboard and related installations are completed on the Administration and Classroom Building.

2) Government furnished equipment, not in this contract, must be installed at a later date by the user. Stub-ups and wiring are provided according to the contract design drawings.

3) Glass window to be installed in control room of Part "B" room 1056.

4) Exterior to be completed, because climatic conditions, include

a) Repair of flashing on roof ventilator.
b) Repair of tension cracks.
c) Repair of expansion joints.
d) Repair of drains, down-spouts and drainage systems.
e) Refinish exterior facings.
f) Reglaze windows.
g) Complete fuel storage tank plumbing and manhole cover work.
h) Repair covered walkway.

Operational Note:

1) Due to the intermittent water service to the university it is recommended that every precaution is taken to ensure adequate service to effected equipment.

2) Due to the fluctuation of electrical power to the University it is recommended that every precaution is taken to allow for the equipment to function normally. The equipment is designed to shut off when over or under loaded and any attempt to manually continue service is unwarranted.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

A. List of Uncompleted Work, Administration and Classroom Building, Kabul University:

Room 1103, Kitchen:

Sub-contractor Heinemann will furnish (1) Coffee Maker (5 liters) and (1) Electric Hot Plate with 2 units.

Room 1107, Chancellor:

Acoustic tile ceiling to be corrected to fit flush.

Auditorium installations and finishes to be completed.

a) Complete installation of stage curtain actuator.
b) Complete installation of main panelboard in room 1083AA.
c) Complete installation of switches and junction boxes.
d) Complete the installation of light bulbs, lenses and control panel.
e) Repair or replace static pressure gage on ventilating unit room 1082.
f) Install (24) screens on roof louvers.
g) Complete the finish of the stage floor.
h) Install ten (10) large screens and sixty-seven (67) small screens for windows.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

B. List of Installed Equipment, Administration and Classroom Building, Kabul University:

Part "A" - First Floor

Description	Quantity
Room 1001, Lobby, Display, Main Stair:	
Fluorescent lighting fixture (with 1 bulb ea.)	11
Incandescent lighting fixture (with 1 bulb ea.)	2
Fire hose cabinet, complete w/hose and nozzle and hand operated extinguisher	1
Fire alarm box	2
Fire alarm bell	1
Fire alarm lamp	3
Exit light	2
Clock	1
Bulletin Board	2
Room 1002, Lounge and Display:	
Fluorescent lighting fixture (with 1 bulb ea.)	5
Incandescent lighting fixture (with 1 bulb ea.)	2
Bulletin board	2
Exit light	2
Fire alarm box	1
Fire alarm lamp	1
Clock	1
Room 1003, Corridor:	
Fluorescent lighting fixture (with 1 bulb ea.)	12
Fire alarm bell	2
Fire alarm lamp	1
Clock bell	2
Telephone box	2
Electric panel board	2
Drinking fountain	1
Exit light	2
Fire hose cabinet, complete w/hose and nozzle and hand operated extinguisher	1
Room 1004, 1005, 1006, Dean, Secretary Asst. Dean:	
Fluorescent lighting fixture (with 3 bulbs ea.) ea. room	4
Room 1007, Clerical:	
Fluorescent lighting fixture (with 2 bulbs ea.)	6

Description	Quantity
Room 1008, Teaching Asst's:	
Fluorescent lighting fixture (with 3 bulbs ea.)	8
Room 1009, 1010, 1011, 1012, 1013, 1014, Dean, Secretary, Asst. Dean, 3 Offices:	
Fluorescent lighting fixture (with 3 bulbs ea.) ea. room	4
Room 1015, Telephone Center:	
Fluorescent lighting fixture (with 4 bulbs ea.)	4
Telephone switchboard	1
Main clock	1
Room 1016, Office:	
Fluorescent lighting fixture (with 2 bulbs ea.)	2
Room 1017, 1018, 1019, 1020, 1021, 1022, 1023, Offices:	
Fluorescent lighting fixture (with 3 bulbs ea.) ea. room	2
Room 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, Offices:	
Fluorescent lighting fixture (with 2 bulbs ea.) ea. room	2
Room 1033, Office:	
Fluorescent lighting fixture (with 3 bulbs ea.)	2
Room 1034, Conference:	
Fluorescent lighting fixture (with 3 bulbs ea.)	6
Room 1035, Storage:	
Fluorescent lighting fixture (with 1 bulb ea.)	2
Room 1036, Stairwell, Display:	
Fluorescent lighting fixture (with 1 bulb ea.)	4
Incandescent lighting fixture (with 1 bulb ea.)	1
Bulletin board	1
Exit light	1
Fire alarm box	1
Fire alarm bell	1
Fire alarm lamp	1
Room 1037, Men's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	6
Incandescent lighting fixture (with 1 bulb ea.)	6
Watercloset, complete w/seat and flush valve	6

Description	Quantity
Toilet paper holder	6
Paper towel holder	1
Urinal, complete w/flush valve	14
Lavatory, complete w/hot and cold water faucet	6
Mirror, wall mtd.	6
Hot water boiler (see mechanical)	1
Room 1038, Woman's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	2
Incandescent lighting fixture (with 1 bulb ea.)	3
Lavatory, complete with hot and cold water faucet	3
Mirror, wall mtd.	3
Paper towel holder	1
Watercloset, complete with seat and flush valve	3
Toilet paper holder	3
Room 1039, Men's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	2
Incandescent lighting fixture (with 1 bulb ea.)	2
Lavatory, complete with hot and cold water faucet	2
Mirror, wall mtd.	2
Paper towel holder	1
Watercloset, complete with seat and flush valve	2
Toilet paper holder	2
Urinal, complete with flush valve	2
Room 1040, Women's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Incandescent lighting fixture (with 1 bulb ea.)	2
Lavatory, complete with hot and cold water faucet	2
Mirror, wall mtd.	2
Paper towel holder	1
Watercloset, complete with seat and flush valve	2
Toilet paper holder	2
Hot water boiler (see mechanical)	1
Room 1041, Rest Room:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Room 1042, Storage, Janitor:	
Incandescent lighting fixture (with 1 bulb ea.)	1
Service sink, complete with hot and cold water faucet	1
Cloth rack	1

Description	Quantity
Room 1043, Mechanical Room:	
Fluorescent lighting fixture (with 1 bulb ea.)	10
Honeywell stir. box	4
Electrical panel board	1
Main switch board	1
Porch Outside	
Entrance East Corridor:	
Incandescent lighting fixture (with 2 bulbs ea.)	1
Entrance Lounge:	
Incandescent lighting fixture (with 2 bulbs ea.)	2
Entrance Lobby:	
Incandescent lighting fixture (with 2 bulbs ea.)	1
Entrance Mechanical Room:	
Incandescent lighting fixture (with 2 bulbs ea.)	1
Exterior flood light	4
Part "A" - Second Floor	
Room 201, Hall and Main Stair:	
Fluorescent lighting fixture (with 1 bulb ea.)	5
Fluorescent lighting fixture (with 2 bulbs ea.)	1
Fire alarm box	1
Fire alarm lamp	1
Fire alarm bell	1
Exit light	1
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Room 202, Lounge and Display:	
Fluorescent lighting fixture (with 1 bulb ea.)	4
Clock	1
Room 203, Lounge and Display:	
Fluorescent lighting fixture (with 1 bulb ea.)	5
Room 204, Corridor:	
Fluorescent lighting fixture (with 1 bulb ea.)	12
Fire alarm bell	2
Fire alarm lamp	1

Description	Quantity
Clock bell	2
Exit light	2
Electric panel board	2
Telephone box	2
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Drinking fountain	1
Room 205, 206, Dean and Secretary:	
Fluorescent lighting fixture (with 3 bulbs ea.) ea. room	4
Room 207, Asst. Dean:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 208, Clerical:	
Fluorescent lighting fixture (with 2 bulbs ea.)	6
Room 209, 210, Asst. Prop. Dean:	
Fluorescent lighting fixture (with 3 bulbs ea.) ea. room	4
Room 211, 212, 213, Secretary, Asst. Dean and Clerical:	
Fluorescent lighting fixture (with 2 bulbs ea.) ea. room	4
Room 214, 215, Secretary and Dean:	
Fluorescent lighting fixture (with 3 bulbs ea.) ea. room	4
Room 216, 217, Double Office:	
Fluorescent lighting fixture (with 2 bulbs ea.) ea. room	4
Room 218, 219, 220, 221, 222, Single Office:	
Fluorescent lighting fixture (with 3 bulbs ea.) ea. room	2
Room 223, Office:	
Fluorescent lighting fixture (with 2 bulbs ea.)	2
Room 224, 225, Double Office:	
Fluorescent lighting fixture (with 2 bulbs ea.) ea. room	4
Room 226, Office:	
Fluorescent lighting fixture (with 3 bulbs ea.)	2

Description	Quantity
Room 227, 228, 229, 230, 231, 232, Single Office:	
Fluorescent lighting fixture (with 3 bulbs ea.) ea. room	2
Room 233, 234, 235, Double Office:	
Fluorescent lighting fixture (with 2 bulbs ea.) ea. room	4
Room 236, 237, 238, 239, Single Office:	
Fluorescent lighting fixture (with 3 bulbs ea.) ea. room	2
Room 240, 241, Storage:	
Fluorescent lighting fixture (with 1 bulb ea.) ea. room	1
242, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	4
Fluorescent lighting fixture (with 2 bulbs ea.)	1
Exit light	1
Fire alarm box	1
Fire alarm bell	1
Fire alarm lamp	1
Room 243, Men's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	2
Incandescent lighting fixture (with 1 bulb ea.)	2
Lavatory, complete with hot and cold water faucet	2
Mirror, wall mtd.	2
Paper towel holder	1
Urinal, complete with flush valve	2
Watercloset, complete with seat and flush valve	2
Toilet paper holder	2
Room 244, Women's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Incandescent lighting fixture (with 1 bulb ea.)	1
Lavatory, complete with hot and cold water faucet	2
Mirror, wall mtd.	2
Paper towel holder	1
Watercloset, complete with seat and flush valve	2
Toilet paper holder	2
Room 245, Rest Room:	
Fluorescent lighting fixture (with 1 bulb ea.)	1

Part "B" - First Floor

Description	Quantity
1044, Corridor:	
Fluorescent lighting fixture (with 1 bulb ea.)	11
Electric panel board	1
Exit light	2
Clock bell	2
Fire alarm bell	2
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Room 1045, Classroom:	
Fluorescent lighting fixture (with 3 bulbs ea.)	12
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	60
Chalk board, wall mtd.	1
Venetian blind, complete	4
Room 1046, Classroom:	
Fluorescent lighting fixture (with 3 bulbs ea.)	12
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	45
Chalk board, wall mtd.	1
Venetian blind, complete	4
Room 1047, Classroom:	
Fluorescent lighting fixture (with 3 bulbs ea.)	12
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	45
Chalk board, wall mtd.	1
Venetian blind, complete	4
Room 1048, Classroom:	
Fluorescent lighting fixture (with 3 bulbs ea.)	12
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	45
Chalk board, wall mtd.	1
Venetian blind, complete	4

Description	Quantity
Room 1049, Classroom:	
Fluorescent lighting fixture (with 3 bulbs ea.)	12
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	45
Chalk board, wall mtd.	1
Venetian blind, complete	4
Room 1050, Classroom:	
Fluorescent lighting fixture (with 2 bulbs ea.)	12
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	40
Chalk board, wall mtd.	1
Venetian blind, complete	3
Room 1051, 1052, Classroom:	
Fluorescent lighting fixture (with 2 bulbs ea.)	12
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	40
Chalk board, wall mtd.	1
Venetian blind, complete	3
Room 1053, 1054, Classroom:	
Fluorescent lighting fixture (with 3 bulbs ea.)	12
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	45
Chalk board, wall mtd.	1
Venetian blind, complete	3
Room 1055, 1056, 1058, 1059, Language Station:	
Fluorescent lighting fixture (with 3 bulbs ea.)	23
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Incandescent lighting fixture (with 1 bulb ea.)	1
Venetian blind, complete	9
Shelf	4
Room 1057, Seminar:	
Fluorescent lighting fixture (with 3 bulbs ea.)	6
Venetian blind, complete	2
Room 1060, Storage:	
Fluorescent lighting fixture (with 1 bulb ea.)	1

Description		Quantity
1061, Stairwell:		
Fluorescent lighting fixture (with 1 bulb ea.)		4
Fire alarm box		1
Fire alarm bell		1
Fire alarm lamp		2
Bulletin board		1
Incandescent lighting fixture (with 1 bulb ea.)		1
Exit light		1
Drinking fountain		1
Room 1062, Janitor:		
Fluorescent lighting fixture (with 1 bulb ea.)		2
Service sink, complete with hot and cold water faucet		1
Cloth rack		1
Hot water boiler (see mechanical)		1
Part "B" - Second Floor		
246, Corridor:		
Fluorescent lighting fixture (with 1 bulb ea.)		11
Fire alarm bell		2
Clock bell		2
Electric panel board		1
Exit light		2
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher		1
Room 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, (11- 20 Students' Classrooms:)		
Fluorescent lighting fixture (with 3 bulbs ea.)	ea. room	6
Instructor's desk	" "	1
Instructor's chair	" "	1
Tablet arm chair	" "	20
Chalk board, wall mtd.	" "	1
Venetian blind, complete	" "	2
Room 258, 259, 260, 261, 262, 263, 264, 265, (8- 30 Students' Classrooms:)		
Fluorescent lighting fixture (with 2 bulbs ea.)	ea. room	12
Instructor's desk	" "	1
Instructor's chair	" "	1
Tablet arm chair	" "	30
Chalk board, wall mtd.	" "	1
Venetian blind, complete	" "	3

Description	Quantity
266, Stairwell:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Fire alarm box	1
Fire alarm bell	1
Fire alarm lamp	2
Exit light	1
Drinking fountain	1
Exterior:	
Flood light	3
Part "C"	
Open Court:	
Fluorescent lighting fixture (with 1 bulb ea.)	8
Covered Walk:	
Fluorescent lighting fixture (with 1 bulb ea.)	19
Incandescent lighting fixture (with 1 bulb ea.)	1
Bulletin board	1
Fire alarm box	2
Fire alarm bell	2
Fire alarm lamp	2
Clock bell	2
Electric panel board	1
Room 1077, Men's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	6
Incandescent lighting fixture (with 1 bulb ea.)	6
Lavatory, complete with hot and cold water faucet	6
Mirror, wall mtd.	6
Paper towel holder	1
Watercloset, complete with seat and flush valve	6
Toilet paper holder	6
Urinal, complete with flush valve	14
Room 1063, Lecture Room:	
Fluorescent lighting fixture (with 3 bulbs ea.)	24
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	117
Chalk board, wall mtd.	1

Description	Quantity
Room 1064, Geography Lab:	
Fluorescent lighting fixture (with 3 bulbs ea.)	24
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	40
Chalk board, wall mtd.	1
Room 1065, Statistic Lab:	
Fluorescent lighting fixture (with 3 bulbs ea.)	24
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	42
Chalk board, wall mtd.	1
Room 1066, Education Lab:	
Fluorescent lighting fixture (with 3 bulbs ea.)	24
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	25
Chalk board, complete	1
Room 1066A, Education:	
Fluorescent lighting fixture (with 3 bulbs ea.)	8
Fluorescent lighting fixture (with 2 bulbs ea.)	2
Counter sink, complete with cold and hot water faucet	2
Floor mtd. counter unit	2
Hot water boiler (see mechanical)	1
Room 1067, Office:	
Fluorescent lighting fixture (with 2 bulbs ea.)	2
Room 1068, Storage:	
Fluorescent lighting fixture (with 1 bulb ea.)	2
Linen shelf unit	1
Room 1069, Storage:	
Fluorescent lighting fixture (with 1 bulb ea.)	2
Shelf, Type A	1
Shelf, Type B	1
Room 1070, Storage:	
Fluorescent lighting fixture (with 1 bulb ea.)	2
Linen shelf cabinet, Type A	1
Linen shelf cabinet, Type B	1

Description	Quantity
Exterior: flood light	2
Part "D"	
Room 1084, Entry:	
Fluorescent lighting fixture (with 2 bulbs ea.)	7
Incandescent lighting fixture (with 2 bulbs ea.)	2
Clock	1
Fire alarm box	1
Fire alarm lamp	1
Exit light	2
Floor mtd. planting box with plastic sheeting	1
Room 1085, Corridor:	
Fluorescent lighting fixture (with 1 bulb ea.)	9
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Fire alarm lamp	1
Room 1086, Corridor:	
Fluorescent lighting fixture (with 1 bulb ea.)	9
Electric panel board	2
Bulletin board	2
Fluorescent lighting fixture (with 1 bulb ea.)	2
Telephone box	1
Clock bell	1
Fire alarm bell	1
Fire alarm box	1
Fire alarm lamp	2
Fire hose cabinet, complete with hose and nozzle and hand operated extinguisher	1
Drinking fountain	1
Room 1087, 1088, Dean of Students:	
Fluorescent lighting fixture (with 2 bulbs ea.) ea. room	4
Room 1089, Vice Chancellor:	
Fluorescent lighting fixture (with 2 bulbs ea.)	6
Room 1090, Secretary:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 1091, Workroom:	
Fluorescent lighting fixture (with 2 bulbs ea.)	26
Clock control box	1

Description	Quantity
Room 1092, Workroom:	
Fluorescent lighting fixture (with 2 bulbs ea.)	12
Room 1093, Secretary:	
Fluorescent lighting fixture (with 3 bulbs ea.)	2
Room 1094, Dean:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 1095, Study Advice:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 1096, Health:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 1097, Registrar:	
Fluorescent lighting fixture (with 3 bulbs ea.)	2
Room 1098, Scholastic:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 1099, Extra Curricular:	
Fluorescent lighting fixture (with 3 bulbs ea.)	2
Room 1100, Publication:	
Fluorescent lighting fixture (with 3 bulbs ea.)	2
Room 1101, Press:	
Fluorescent lighting fixture (with 2 bulbs ea.)	10
Room 1102, Senate Room:	
Fluorescent lighting fixture (with 3 bulbs ea.)	16
Clock	1
Room 1103, Kitchen:	
Fluorescent lighting fixture (with 3 bulbs ea.)	2
Counter sink, complete with hot and cold water faucet	1
Wall mtd. cabinet	1
Floor mtd. cabinet	1
Refrigerator (Westinghouse)	1
Coffee Maker	1
Griddle	1

Description	Quantity
Room 1104, Storage:	
Fluorescent lighting fixture (with 1 bulb ea.)	2
Room 1105, Asst.:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 1106, Secy. & Recep.:	
Fluorescent lighting fixture (with 2 bulbs ea.)	6
Room 1107-08, Chancellor:	
Fluorescent lighting fixture (with 4 bulbs ea.)	9
Fluorescent lighting fixture (with 2 bulbs ea.)	6
Room 1109, General Office:	
Fluorescent lighting fixture (with 3 bulbs ea.)	18
Fire alarm bell	1
Exit light	1
Room 1110, Secretary:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 1111, Vice Chancellor:	
Fluorescent lighting fixture (with 4 bulbs ea.)	4
Room 1112, Property Manager:	
Fluorescent lighting fixture (with 2 bulbs ea.)	8
Room 1113, Post Office:	
Fluorescent lighting fixture (with 3 bulbs ea.)	3
Room 1114, Bank:	
Fluorescent lighting fixture (with 3 bulbs ea.)	6
Room 1115, Acct'g:	
Fluorescent lighting fixture (with 3 bulbs ea.)	4
Room 1116, Purchasing:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4
Room 1117, Housing:	
Fluorescent lighting fixture (with 2 bulbs ea.)	4

Description	Quantity
Room 1118, Storage:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Room 1119, Vault:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Room 1120, Vest:	
Fluorescent lighting fixture (with 2 bulbs ea.)	1
Room 1121, Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Incandescent lighting fixture (with 1 bulb ea.)	1
Lavatory, complete with hot and cold water faucet	1
Mirror, wall mtd.	1
Paper towel holder	1
Watercloset, complete with seat and flush valve	1
Toilet paper holder	1
Hot water boiler (see mechanical)	1
Room 1122, Women's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	2
Incandescent lighting fixture (with 1 bulb ea.)	2
Lavatory, complete with hot and cold water faucet	2
Mirror, wall mtd.	2
Paper towel holder	1
Watercloset, complete with seat and flush valve	1
Toilet paper holder	1
Room 1123, Men's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	4
Incandescent lighting fixture (with 1 bulb ea.)	4
Lavatory, complete with hot and cold water faucet	4
Mirror, wall mtd.	4
Paper towel holder	1
Watercloset, complete with seat and flush valve	3
Toilet paper holder	3
Urinal, complete with flush valve	3
Room 1124, Staff Men's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Incandescent lighting fixture (with 1 bulb ea.)	4
Lavatory, complete with hot and cold water faucet	4
Mirror, wall mtd.	4

Description	Quantity
Urinal, complete with flush valve	2
Watercloset, complete with seat and flush valve	2
Toilet paper holder	2
Towel paper holder	1
Room 1125, Vest.:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Room 1126, Rest:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Room 1127, Staff Women's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	3
Incandescent lighting fixture (with 1 bulb ea.)	4
Lavatory, complete with hot and cold water faucet	4
Mirror, wall mtd.	4
Paper towel holder	1
Watercloset, complete with seat and flush valve	2
Toilet paper holder	2
Room 1128, Janitor:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Service sink, complete with hot and cold water faucet	1
Cloth rack	1
Hot water boiler (see mechanical)	1
Court:	
Flood light	4
Exterior:	
Flood light	2
Part "E"	
Covered Walk:	
Fluorescent lighting fixture (with 1 bulb ea.)	12
Electric panel board	1
Bulletin board	2
Fire alarm box	1
Fire alarm lamp	1
Room 1071, Auditorium:	
Incandescent lighting fixture (with 1 bulb ea.)	12

Description	Quantity
Fluorescent lighting fixture (with 1 bulb ea.)	40
Seat light, char mtd.	4
Seat	382
Clock	1
Exit light	8
Drinking fountain	1
1072, Stage:	
Incandescent lighting fixture, ceiling mtd. (with 1 bulb ea.)	12
Incandescent lighting fixture, wall mtd. (with 1 bulb ea.)	2
Stage light floor mtd. (with 8 bulbs ea.)	7
Stage light transportable (with 6 bulbs ea.)	8
Stage flash light (with 1 bulb ea.)	2
Room 1073, Dressing Room:	
Fluorescent lighting fixture (with 1 bulb ea.)	5
Incandescent lighting fixture (with 2 bulbs ea.)	3
Lavatory, complete with hot and cold water faucet	1
Mirror, wall mtd.	4
Hot water boiler (see mechanical)	1
Wardrobe	1
Room 1074, Storage:	
Incandescent lighting fixture (with 1 bulb ea.)	2
Room 1075, Storage:	
Incandescent lighting fixture (with 1 bulb ea.)	2
Room 1076, Storage:	
Incandescent lighting fixture (with 1 bulb ea.)	3
Room 1078, Women's Toilet:	
Fluorescent lighting fixture (with 1 bulb ea.)	4
Lavatory, complete with hot and cold water faucet	4
Mirror, wall mtd.	4
Fluorescent lighting fixture (with 1 bulb ea.) wall mtd.	4
Paper towel holder	1
Watercloset, complete with seat and flush valve	5
Toilet paper holder	5
Room 1079, Powder Room:	
Fluorescent lighting fixture (with 1 bulb ea.)	4
Mirror, wall mtd.	5
Fluorescent lighting fixture (with 1 bulb ea.) wall mtd.	5

Description	Quantity
Room 1080, Stairwell:	
Incandescent lighting fixture (with 1 bulb ea.)	2
Room 1081, Mechanical Room:	
Incandescent lighting fixture (with 1 bulb ea.)	5
Honeywell Thermostat	1
Room 1082, Mechanical Room:	
Incandescent lighting fixture (with 1 bulb ea.)	3
Room 1083, Transformer:	
Incandescent lighting fixture (with 1 bulb ea.)	1
Room 1083A, Transformer:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Room 1083AA, Transformer:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
Entrance North:	
Incandescent lighting fixture (with 2 bulbs ea.)	1
Entrance South:	
Incandescent lighting fixture (with 2 bulbs ea.)	2
Entrance to 1082:	
Incandescent lighting fixture (with 2 bulbs ea.)	1
Entrance to 1083:	
Incandescent lighting fixture (with 2 bulbs ea.)	1
Entrance to 1075:	
Incandescent lighting fixture (with 2 bulbs ea.)	1
Room 267, Projection Booth:	
Incandescent lighting fixture (with 1 bulb ea.)	4
Clock	1
Service sink, complete with hot and cold water faucet	1
Electric panel board	1

Description	Quantity
Fire alarm bell	1
Fire closure mechanism assembly, complete for 2 openings	1
Projector, Mfg. Bauer, Type BL8H1 (serial #5537)	1
Projector, Mfg. Bauer, Type BL8H1 (serial #5542)	1

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

C. Test Reports for Mechanical and Electrical System, Administration and Classroom Building, Kabul University:

Mechanical:

1) 1 - Boiler w/Smoke Connection, relief and drainage equipment, Mfg. Eisenwerk-Baumgate, Model #13577, tested and accepted in accordance with Specs, Pg. 30-02, Par. 28-21.

2) Burner Assembly:

a) 1 - Burner, Mfg. Monarch, Model #70884, Type L8VZD.
b) 1 - Motor, Mfg. Weishaupt, Model #86446, Type D1/110-2.
c) 1 - Control Console, Mfg. Weishaupt, Model #9275, Type PF3D/4.
All burner equipment tested and accepted in accordance with Specs., Pg. 30-04, Par. 30-08.

3) Hot Water Circulating Pumps:

a) 1 -, Mfg. KSB, Type TA 65-26K, Model #6-101-184 554/1 with motor, Mfg. Hansa, Type 14/40/4 serial #235582.
b) 1 -, Mfg. KSB, Type TA 65-26K, Model #6-101-160 240/3 with motor, Mfg. Hansa, Type 14/40/4, serial #235581.
c) 1 -, Mfg. KSB, Type TA 65-26K, Model #6-101-160 240/3 with motor, Mfg. Siemens, Type R4956 IV, serial #12807907.
d) 1 -, Mfg. KSB, Type TA 65-26K, Model #6-101-160 240/2 with motor, Mfg. Siemens, Type R4956 IV, serial #12804118.
All pumps and motors tested and accepted in accordance with Specs., Pg. 30-07, Par. 30-15.

4) 3 - Fuel-Oil Storage Tanks, capacity 20,000 liters, tested and accepted in accordance with Specs., Pg. 30-05, Par. d.

5) 2 - Compression (Blow-off) Tanks, Mfg. Bertrams A.G., capacity 1,700 liters, tested and accepted in accordance with Specs., Pg. 30-12, Par. 30-27.

6) 1 - Hand Sump (Bilge) Pump, tested and accepted in accordance with Specs., Pg. 30-07, Par. 30-15.

7) 3 - Thermostatic 3-way motorized mixing valves, Mfg. Honeywell, Model #Q455 with motor, Model #M904F, tested and accepted in accordance with Specs., Pg. 26-09, Par. 26-15.

8) Electric Heaters:

Part "A" - Men's Room 1037

a) 1 -, Mfg. Stiebel, Type SHST-200, 2.4 KW.

Part "A" - Women's Room 1040

b) 1 -, Mfg. Stiebel, Type SHST-200, 6.0 KW.

8) Electric Heaters: Cont'd

Part "B" - Room 1062

c) 1 -, Mfg. Stiebel, Type SHST-200, 2.4 KW.

Part "D" - Room 1128, 1121 and 1103

d) 1 -, Mfg. Stiebel, Type SHST-300, 6 KW.
e) 1 -, Mfg. Stiebel, Type SH 5, 2 KW.
f) 1 -, Mfg. Stiebel, Type SH 5, 2 KW.

Part "E" - Room 1081

g) 1 -, Mfg. Stiebel, Type SH-80, 4.0 KW.

Part "E" - Room 1073

h) 1 -, Mfg. Stiebel, Type SH 5, 2 KW.

All heaters, tested and accepted in accordance with Specs., Pg. 28-04, Par. 28-07.

9) Mechanical Rooms 1081 and 1082:

2 - Hot Water Heating Units, Mfg. Rox, Type D2ZK140 w/blower motor, Mfg. Werks-Kaiser, Type AD 23/4, tested and accepted in accordance with Specs., Pg. 31-01.

10) 2 - Thermostatic 2-way motorized mixing valves, Mfg. Honeywell, Model #Q450 w/motor, Model #M803E, tested and accepted in accordance with Specs., Pg. 26-09, Par. 26-15.

11) Convectors:

2 -, Mfg. Bostell, Model # 15/42
5 -, Mfg. " , Model # 15/21
5 -, Mfg. " , Model # 15/15
1 -, Mfg. " , Model # 10/40
1 -, Mfg. " , Model # 10/23
3 -, Mfg. " , Model # 10/53
2 -, Mfg. " , Model # 15/45
6 -, Mfg. " , Model # 10/38
1 -, Mfg. " , Model # 15/35
19 -, Mfg. " , Model # 10/19
3 -, Mfg. " , Model # 10/16/71F
2 -, Mfg. " , Model # 10/14/71F
4 -, Mfg. " , Model # 15/27
6 -, Mfg. " , Model # 15/40
1 -, Mfg. " , Model # 10/153
2 -, Mfg. " , Model # 15/57
2 -, Mfg. " , Model # 15/50
7 -, Mfg. " , Model # 15/43

11) Convectors: Cont'd

1 -, Mfg. Bastell, Model # 15/56
5 -, Mfg. " , Model # 15/33
16 -, Mfg. " , Model # 15/25
1 -, Mfg. " , Model # 15/54
5 -, Mfg. " , Model # 15/12
1 -, Mfg. " , Model # 15/18
1 -, Mfg. " , Model # 15/37
2 -, Mfg. " , Model # 15/26
6 -, Mfg. " , Model # 10/69
5 -, Mfg. " , Model # 10/53
4 -, Mfg. " , Model # 15/05
12 -, Mfg. " , Model # 20/42
1 -, Mfg. " , Model # 20/68
3 -, Mfg. " , Model # 25/45
7 -, Mfg. " , Model # 20/58
1 -, Mfg. " , Model # 10/11/71F
3 -, Mfg. " , Model # 20/39
1 -, Mfg. " , Model # 20/35
1 -, Mfg. " , Model # 15/134
1 -, Mfg. " , Model # 15/30
1 -, Mfg. " , Model # 20/29
1 -, Mfg. " , Model # 25/11/71F
1 -, Mfg. " , Model # 15/11/71F
4 -, Mfg. " , Model # 15/20
2 -, Mfg. " , Model # 20/16
2 -, Mfg. " , Model # 20/12
9 -, Mfg. " , Model # 20/37
4 -, Mfg. " , Model # 20/31
1 -, Mfg. " , Model # 10/31
2 -, Mfg. " , Model # 15/23
1 -, Mfg. " , Model # 15/31
1 -, Mfg. " , Model # 15/115
2 -, Mfg. " , Model # 20/138
1 -, Mfg. " , Model # 20/185
1 -, Mfg. " , Model # SK 10.0
1 -, Mfg. " , Model # SK 4.20
6 -, Mfg. " , Model # SK 3.80
1 -, Mfg. " , Model # SK 2.40
3 -, Mfg. " , Model # SK 4.60
2 -, Mfg. " , Model # SK 4.40

All convectors, tested and accepted in accordance with Specs., Pg. 28-03, Par. 28-06.

12) Pressure Relief Valve, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

13) Pressure Gage, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-20.

14) Thermometer, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-21.

15) Feed Water Regulator, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

16) Valves, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-13.

17) Control, tested and accepted in accordance with Spec., Pg. 30-08, Par. 30-17.

18) Strainer, tested and accepted in accordance with Spec., Pg. 30-11, Par. 30-23.

19) Test of Boiler System, tested and accepted in accordance with Spec., Pg. 28-08, Par. 28-17.

20) Test of Heater System, tested and accepted in accordance with Spec., Pg. 26-19, Par. 26-35.*

21) Pressure Gage, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

22) Valves, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-13.

23) Fire Protection Equipment, Mfg. Hoenig, Model #IS-V/SP-HFL, tested and accepted in accordance with Spec., Pg. 26-14, Par. 26-29.

24) Water Pipe, Fitting and Connections, tested and accepted in accordance with Spec., Pg. 26-07, Par. 26-12 and Pg. 26-19, Par. 26-35.

Plumbing System:

25) Soil, Waste, Drain & Vent Pipe, Fitting & Connections, tested and accepted in accordance with Spec., Pg. 26-03, Par. 26-05, Pg. 26-04, Par. 26-06, Pg. 26-05, Par. 26-08, Pg. 26-05, Par. 26-09, & Pg. 26-05, Par. 26-10.

26) Cleaning of the Hot Water System and Sterilization of Water Service System as outlined in Specs., Pg. 26-08, Subpar.(f) and Pg. 28-08, Par. 28-18.

Cleaning of Hot Water System and Sterilization of the Water Service System to be accomplished by introducing disenfecting solutions into the main water distribution system, allowing the entire system to be affected.

* This circuit supplies the hot water requirements for the Rest Rooms.

The Hot Water System should be fully operational* for at least 48 hours prior to introducing solutions into the System. Circulation of solution in system should cover a period of at least 48 hours as outlined in Spec., Pg. 28-08, Par. 28-18.

27) Piping and Fittings, tested and accepted in accordance with Specs., Pg. 32-02, Par. 32-04 (a) & Pg. 32-01.

28) Test of System, System tested and accepted in accordance with Spec., Pg. 32-04, Par. 32-12.

29) Ventilating System & Equipment, tested and accepted in accordance with Spec., Pg. 31-01.

Summary of Mechanical Specifications:

1) Tools,**operating and maintenance instructions are provided in accordance with Specs., Pg. 28-08, Par. 28-15 and Pg. 28-08, Par. 28-16. This equipment and instruction references will remain in the custody of the contractor for the duration of service warranty, as per contract agreement.

2) Cleaning and sterilization of water distribution system will be accomplished as described in Item 26.

3) Contractor's Liability for Good Workmanship:

The Contractor shall be responsible for good workmanship in the performance of this contract in accordance with the terms and conditions thereof. The Contractor shall be responsible for any losses, damages, or other expenses resulting from his failure to perform good workmanship or other requirements of this contract, and shall at its own expense repair any defects in the University facilities of which Contractor is given notice within one year of acceptance of such facilities and which are caused by faulty workmanship of Contractor's employees of faulty material, or by failure of Contractor to follow plans and specifications as modified by change orders and field changes approved by the Resident Engineer.

4) Data and references covered in this acceptance report have been compiled from approved data and references submitted by the Contractor and material described herein is effective this date, 18 March 1964.

* Fully operational, allowing the system to function as it would during normal operations.

** One set of tools including welding equipment will be furnished for complete maintenance program to be completed with final of University Project.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

PACIFIC ARCHITECTS AND ENGINEERS, INC.

February 10, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Submitted herewith is Certificate of Acceptance for the Library, Kabul University.

Also submitted are the following:

1) List of uncompleted work.

2) List of installed equipment.

3) Test reports for electrical and mechanical systems.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

PACIFIC ARCHITECTS AND ENGINEERS, INC.

February 10, 1964

U.S.A.I.D.
Kabul, Afghanistan

Dear Sirs:

Certificate of Acceptance

In accordance with "Article V - Acceptance of Work" of contract between the United States of America Represented by the Agency for International Development ("A.I.D.") and Hochtief Aktiengesellschaft fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann dated 2nd Day of April 1963, Pacific Architects and Engineers, Inc. hereby issue this certificate for the Library.

Pacific Architects and Engineers, Inc. as per contract between PA&E and U.S.A.I.D., have inspected the Library and accept the work as being complete in accordance with the design drawings, change orders and specifications and ready for occupancy by the Kabul University representing the Royal Government of Afghanistan.

Pacific Architects and Engineers, Inc. therefore recommend that the keys to the Library be accepted by the Agency for International Development (A.I.D.) to be turned over to the Kabul University Administration.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

1) List of Uncompleted Work and Deficiencies, Library, Kabul University:

1) Telephone system and fire alarm system are installed but can not be tested for final correct operation until switchboard and related installations are completed in the Administration and Classroom Building.

2) Installation of correct thickness of glass for show cases will be done when glass arrives.

3) Replace cracked wooden baseboards in Room 119.

4) Bell caps of lighting fixture hangers in Main Reading Room do not fit flush to ceiling.

5) Terrazzo: It would be advisable to resurface the pre-cast terrazzo tile floor, preferably with a grinding machine and polisher.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

2) List of Installed Equipment, Library, Kabul University:

Architectural:

Room No. 101, Lobby:

Description	Quantity
Charging Desks, combination, complete	1
Card Catalog File	4
Catalog Reference Table	2
Double Shelving Unit	2
Fluorescent Lighting Fixture (with 3 bulbs ea.)	34
Fluorescent Lighting Fixture, square size (with 6 bulbs ea.)	12
Fire Alarm Box	2
Fire Alarm Bell	2
Fire Alarm Lamp	2
Exit Light	3

Room No. 102, Main Stack Area & Room No. 103, Circulation Area:

Fluorescent Lighting Fixture (with 2 bulbs ea.)	216
Fire Alarm Box	1
Fire Alarm Bell	2
Fire Alarm Lamp	1
Exit Light	1
New Book Display Rack	2
Exhibit Case	2
Magazine Rack	4
Display Case	4

Room No. 104, Study Alcoves:

Curtain Tracks	5
Fluorescent Lighting Fixture (with 1 bulb ea.)	48
Wall Mtd. Incandescent Fixture (with 1 bulb ea.)	1
Fluorescent Lighting Fixture (with 3 bulbs ea.)	32
Window Opener Pole	8

Room No. 105, Periodical Room:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	36
Wall Mtd. Incandescent Fixture (with 1 bulb ea.)	1

Room No. 106, Archives:

Fluorescent Lighting Fixture (with 2 bulbs ea.)	8

Room No. 107, Reference Room:

Fluorescent Lighting Fixture (with 2 bulbs ea.)	24

Room No. 108, Reading Room:

Fluorescent Lighting Fixture (with 2 bulbs ea.)	24

Room No. 109, Corridor & Receiving:

Description	Quantity
Drinking Fountain, wall mtd.	1
Fluorescent Lighting Fixture (with 1 bulb ea.)	13
Fire Alarm Bell	1

Room No. 110, Head Librarian:

Fluorescent Lighting Fixture, square size (with 6 bulbs ea.)	2

Room No. 111, Secty. & Recept.:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	1

Room No. 112, Assist. Librarian:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	1

Room No. 113, Assoc. Librarian:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	1

Room No. 114, Sound Suite:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	6
Fire Alarm Bell	1
Incandescent Lighting Fixture (with 2 bulbs ea.)	6

Room No. 115, Film Suite:

Incandescent Lighting Fixture (with 2 bulbs ea.)	3

Room No. 116, Photo-copy & Micro:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	6

Room No. 121, Order:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	8

Room No. 125, Repair:

Stainless Steel Sink	1
Fluorescent Lighting Fixture (with 3 bulbs ea.)	12

Room No. 120, Dark Room:

Developing Table	1
Printing Table	1
Incandescent Lighting Fixture (with 1 bulb ea.)	4
Incandescent Safety Lamp, Red (with 1 bulb ea.)	1

Room No. 119, Cataloging:

Description	Quantity
Fluorescent Lighting Fixture (with 4 bulbs ea.)	16
Fire Alarm Bell	1
Control Lamp (for Dark Room)	1

Room No. 122, Women's Toilet:

Lavatory, complete with hot and cold water valves	2
Water Closet, complete with seat and flush valve	2
Mirror, wall mtd.	2
Paper Towel Holder	1
Toilet Paper Holder	2

Room No. 122, Women's Toilet:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Incandescent Lighting Fixture, wall mtd. (with 1 bulb ea.)	2

Room No. 123, Men's Toilet:

Lavatory, complete with hot and cold water valves	4
Urinal, complete with flush valve	4
Water Closet, complete with seat and flush valve	2
Mirror, wall mtd.	4
Paper Towel Holder	1
Toilet Paper Holder	2
Incandescent Lighting Fixture (with 1 bulb ea.)	4
Incandescent Lighting Fixture, wall mtd. (with 1 bulb ea.)	4

Room No. 124, Men Student's Toilet:

Lavatory, complete with hot and cold water valves	5
Urinal, complete with flush valve	5
Water Closet, complete with seat and flush valve	5
Incandescent Lighting Fixture (with 1 bulb ea.)	6
Incandescent Lighting Fixture, wall mtd. (with 1 bulb ea.)	5

Room - Mechanical Room:

Incandenscent Lighting Fixture (with 1 bulb ea.)	6

Room No. 126, Boiler Room:

Incandescent Lighting Fixture (with 1 bulb ea.)	8

Room No. 118, Switch Room:

Fluorescent Lighting Fixture (with 1 bulb ea.)	1

Room No. 201, Main Reading Room:

Description	Quantity
Fluorescent Lighting Fixture (with 3 bulbs ea.)	96
Drinking Fountain	1
Exit Light	2
Room No. 1060, Staff Lounge:	
Fluorescent Lighting Fixture (with 3 bulbs ea.)	2
Fluorescent Lighting Fixture (with 4 bulbs ea.)	2
Cupboard Sink	1
Outside:	
South Porch: Fluorescent Lighting Fixture (with 2 bulbs ea.)	12
North Porch: Fluorescent Lighting Fixture (with 2 bulbs ea.)	12
Flood Lights: Fluorescent Lighting Fixture (with 1 bulb ea.)	10
East Entrance: Incandescent with 1 bulb, wall mtd.	1
Boiler Room Entrance: Incandescent with 1 bulb, wall mtd.	1
Entrance to Receiving: Incandescent with 2 bulbs	2

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GÜNTER P. STEITZ
Resident Engineer
Kabul University

3) Test Reports for Electrical and Mechanical System, Library, Kabul University:

Mechanical:

Item Boiler Room:

1) 1 - Boiler w/Smoke Connections; - Mfg. Eisenwerk-Baumgate, Model # D1-2, tested and accepted in accordance with contract Spec., Pg. 30-02, Par. 28-21.

2) 1 - Oil-Burner w/Equipment; - Mfg. Monarch, Model # LO bis L8, tested and accepted in accordance with contract Spec., Pg. 30-04, Par. 30-08.

3) 1 - Circulating Pump; - Mfg. KSB, Model # ETA 80-26G, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-15.

4) 1 - Circulating Pump; - Mfg. W. Oplander, Model # 71486, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-15.

5) 2 - Fuel-Oil Storage Tanks; - Capacity 15,000 liters, tested and accepted in accordance with Spec., Pg. 30-05, Par. d.

6) 2 - Blow-Off Tanks; - Mfg. Bertrams A. G., Capacity 760 liters, tested and accepted in accordance with Spec., Pg. 30-12, Par. 30-27.

7) 2 - Thermostatic Mixing Valves; - Mfg. Honeywell, Model # G455-61 w/Motors, Model # M904F, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-15.

8) Burner Control Console-Weishaupt - Model # PF3D-4, tested and accepted in accordance with Spec., Pg. 30-08, Par. 30-17.

9) Pressure Gages and Thermometers, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-12, 30-20 & 30-21.

10) Pressure Relief Valves, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

11) Feed Water Regulator, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

12) Cold Water Connection, tested and accepted in accordance with Spec., Pg. 30-09, Par. 30-18.

Item Heating System:

13) 4 - Unit Heaters; - Mfg. GEA, Model # 312, tested and accepted in accordance with Spec., Pg. 28-04, Par. 28-07.

14) 4 - Convectors; - Mfg. Bastell, Model # 20/60
2 - Convectors; - Mfg. " , Model # 20/68
3 - Convectors; - Mfg. " , Model # 25/25
4 - Convectors; - Mfg. " , Model # 20/23
1 - Convector ; - Mfg. " , Model # 20/07/81F
1 - Convector ; - Mfg. " , Model # 15/36
1 - Convector ; - Mfg. " , Model # 20/62
1 - Convector ; - Mfg. " , Model # 15/23
2 - Convectors; - Mfg. " , Model # 15/19
1 - Convector ; - Mfg. " , Model # 20/21
2 - Convectors; - Mfg. " , Model # 10/64
4 - Convectors; - Mfg. " , Model # 10/54
1 - Convector ; - Mfg. " , Model # 20/15/81F
2 - Convectors; - Mfg. " , Model # 20/29
2 - Convectors; - Mfg. " , Model # 20/58
3 - Convectors; - Mfg. " , Model # 15/67,

tested and accepted in accordance with Spec. Pg. 28-03, Par. 28-06.

15) Pressure Relief Valve, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

16) Pressure Gage, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-20.

17) Thermometer, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-21.

18) Feed Water Regulator, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

19) Valves, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-13.

20) Control, tested and accepted in accordance with Spec., Pg. 30-08, Par. 30-17.

21) Strainer, tested and accepted in accordance with Spec., Pg. 30-11, Par. 30-23.

22) Test of Boiler System, tested and accepted in accordance with Spec., Pg. 28-08, Par. 28-17.

23) Test of Heater System, tested and accepted in accordance with Spec., Pg. 26-19, Par. 26-35.*

Item Water Service System:

24) Fire Protection Equipment; - Mfg. Hoenig, Model #IS-V/SP-HFL, tested and accepted in accordance with Spec., Pg. 26-14, Par. 26-29.

25) Water Pipe, Fitting and Connections, tested and accepted in accordance with Spec., Pg. 26-07, Par. 26-12 and Pg. 26-19, Par. 26-35.

* This circuit supplies the hot water requirements for the Rest Room.

Item Plumbing System:

26) Soil, Waste, Drain & Vent Pipe, Fitting & Connections, tested and accepted in accordance with Spec., Pg. 26-03, Par. 26-05, Pg. 26-04, Par. 26-06, Pg. 26-05, Par. 26-08, Pg. 26-05, Par. 26-09, & Pg. 26-05, Par. 26-10.

27) Cleaning of the Hot Water System and Sterilization of Water Service System as outlined in Specs., Pg. 26-08, Subpar. (f) & Pg. 28-08, Par. 28-18.

Cleaning of the Hot Water System and Sterilization of the Water Service System to be accomplished by introducing disenfecting solutions into the main water distribution system, allowing the entire system to be affected.

The Hot Water System should be fully operational* for at least 48 hours prior to introducing solutions into the system. Circulation of solution in system should cover a period of at least 48 hours as outlined in Spec., Pg. 28-08, Par. 28-18.

Item Heating System (Forced Air):

28) 1 - Centrifugal Blower w/Motor; - Mfg. Rex, Model # AD 24/4, tested and accepted in accordance with Spec., Pg. 28-04, Par. 28-08, Subpar. b & c, & Pg. 31-02, Par. 31-05 b.

29) 1 - Automatic Damper; - Mfg. Honeywell, Model # M905E, tested and accepted in accordance with Spec., Pg. 28-05, Par. 28-09, & Pg. 31-04, Par. 31-14a.

30) Airfilters, tested and accepted in accordance with Spec., Pg. 31-03, Par. 31-06.

31) Ventilating System & Equipment, tested and accepted in accordance with Spec., Pg. 31-08, Par. 31-24.

Summary of Mechanical Specifications:

1) Tools**, operating and maintenance instructions are provided in accordance with Specs., Pg. 28-08, Par. 28-15 and Pg. 28-08, Par. 28-16. This equipment and instruction references will remain in the custody of the contractor for the duration of service warranty, as per contract agreement.

2) Cleaning and sterilization of water distribution system will be accomplished as described in Item 27.

* Fully operational, allowing the system to function as it would during normal operations.

** One set of tools including welding equipment will be furnished, in providing necessary maintenance operations.

3) Contractor's Liability for Good Workmanship:

The Contractor shall be responsible for good workmanship in the performance of this contract in accordance with the terms and conditions thereof. The Contractor shall be responsible for any looses, damages, or other expenses resulting from his failure to perform good workmanship or other requirements of this contract, and shall at its own expense repair any defects in the University facilities of which Contractor is given notice within one year of acceptance of such facilities and which are caused by faulty workmanship of Contractor's employees of faulty material, or by failure of Contractor to follow plans and specifications as modified by change orders and field changes approved by the Resident Engineer.

4) Data and references covered in this acceptance report have been compiled from approved data and references submitted by the Contractor and material described herein is affective this date, 20 January 1964.

Electrical:

1) 1 - Transformer, - Mfg. Elmowa, Model # PO 200/20, tested and accepted in accordance with Spec., Pg. 34-20, Par. 34-25, Subpar. 34-25a & Pg. 34-21, Par. 34-25 Subpar. a.

2) Motors and Controls, tested and accepted in accordance with Spec., Pg. 33-03, Par. 33-15 and are protected again voltage over and underloads.

3) Branch Circuits and Devices, tested and accepted in accordance with Spec., Pg. 33-08, Par. 33-13.

4) Switches, tested and accepted in accordance with Spec., Pg. 33-07, Par. 33-12.

5) Receptacles, tested and accepted in accordance with Spec., Pg. 33-07, Par. 33-11.

6) Outlets, Junction and Pull Boxes, tested and accepted in accordance with Spec., Pg. 33-06, Par. 33-10.

7) Wireways and Troughs, tested and accepted in accordance with Spec., Pg. 33-06, Par. 33-09.

8) Lighting, tested and accepted in accordance with Spec., Pg. 33-10, Pg. 33-16.

9) Test of Interior System, tested and accepted in accordance with Spec., Pg. 33-12, Par. 33-20.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 5, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Submitted herewith is Certificate of Acceptance for the Agriculture Building, Kabul University.

Also submitted are the following:

1) List of uncompleted work.

2) List of installed equipment.

3) Test reports for electrical and mechanical systems.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 5, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Certificate of Acceptance

In accordance with "Article V - Acceptance of Work" of contract between the United States of America Represented by the Agency for International Development ("A.I.D.") and Hochtief Aktiengesellschaft fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann dated 2nd Day of April, 1963, Pacific Architects and Engineers, Inc. hereby issue this certificate for the Agriculture Building.

Pacific Architects and Engineers, Inc. as per contract between PA&E and U.S.A.I.D., have inspected the Agriculture Building and accept the work as being completedin accordance with the design drawings, change orders and specifications and ready for occupancy by the Kabul University representing the Royal Government of Afghanistan.

Pacific Architects and Engineers, Inc. therefore recommend that the keys to the Agriculture Building be accepted by the Agency for International Development (A.I.D.) to be turned over to the Kabul University Administration.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

1) List of Uncompleted Work and Deficiencies, Agriculture Building, Kabul University:

1. Telephone system and fire alarm system are installed but can not be tested for final correct operation until switchboard and related installations are completed in the Administration and Classroom Building.

2. Parging the face of exterior brickwall at the classroom wing.

3. Touch-up painting exterior of building.

Item 2 and 3 to be done when weather condition are favorable in accordance with the Specifications.

22 bulbs for fluorescent fixture in fumehood are missing, and will be furnished by Hochtief upon arrival.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

2) List of Installed Equipment, Agriculture Building, Kabul University:

Architectural:

Room No. 101, Lobby:

Description	Quantity
Fluorescent Lighting Fixture (with 1 bulb ea.)	11
" " " (" " " ")	2
Exit Light	2
Fire Hose Cabinet, complete with hose & nozzle & hand operated extinguisher	1
Red Fire Lamp	2
Fire Alarm Switch	1
Clock	1
Bulletin Board	2

Room No. 102, Corridor:

Fluorescent Lighting Fixture (with 1 bulb ea.)	8
" " " (" " " ")	1
Program Bell	2
Fire Hose Cabinet, complete with hose & nozzle & hand operated extinguisher	1
Red Fire Lamp	2
Fire Alarm Switch	1
Exit Light	1
Bulletin Board	1
Electric Panel	1
Fire Alarm Bell	2

Room No. 103, Corridor:

Fluorescent Lighting Fixture (with 1 bulb ea.)	18
" " " (" " " ")	1
Bulletin Board	1
Exit Light	1
Fire Alarm Bell	3
Red Fire Lamp	3
Fire Alarm Switch	1
Program Bell	3
Fire Hose Cabinet, complete with hose & nozzle & hand operated extinguisher	2
Drinking Fountain	3
Electric Panel	11

Room No. 104, Lecture and Demonstration:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	35
Chalk Board	1
Table & Arm Chair	120
Instructor's Chair	1
Instructor's Desk	1
Venetian Blind	8

Room No. 104, Lecture and Demonstration: (Cont'd)

Description	Quantity
Lecture and Demonstration Table (Item 30)	1
Base Counter (Item 15)	10
Wall Mounted Case (Item 17)	10
Glazed Sliding Door Case (Item 12)	5
Room No. 105, Preparation Room:	
Fluorescent Lighting Fixture (with 4 bulbs ea.)	6
Preparation Table (Item 19)	1
Fume Hood Assembly (Item 21)	1
Wall Mounted Case (Item 29)	3
Base Counter (Item 15)	3
Wall Sink Assembly (Item 9)	1
Room No. 106, Classroom:	
Fluorescent Lighting Fixture (with 3 bulbs ea.)	12
Chalk Board	1
Venetian Blind	6
Tablet Arm Chair	42
Instructor's Desk	1
Instructor's Chair	1
Room No. 107, Classroom:	
Fluorescent Lighting Fixture (with 3 bulbs ea.)	9
Chalk Board	1
Venetian Blind	3
Tablet Arm Chair	28
Instructor's Chair	1
Instructor's Desk	1
Room No. 108, Classroom:	
Fluorescent Lighting Fixture (with 3 bulbs ea.)	9
Chalk Board	1
Venetian Blind	3
Tablet Arm Chair	28
Instructor's Desk	1
Instructor's Chair	1
Room No. 109, Classroom:	
Fluorescent Lighting Fixture (with 3 bulbs ea.)	9
Chalk Board	1
Venetian Blind	3
Tablet Arm Chair	28
Instructor's Desk	1
Instructor's Chair	1

Room No. 110, Classroom:

Description	Quantity
Fluorescent Lighting Fixture (with 3 bulbs ea.)	9
Chalk Board	1
Venetian Blind	3
Tablet Arm Chair	28
Instructor's Desk	1
Instructor's Chair	1

Room No. 111, Conference-Seminar:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	4

Room No. 111-A:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	4

Room No. 112, Office and Lab:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	2
Fume Hood and Wall Assembly (Item 20)	1

Room No. 113, Office and Lab:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	2
Fume Hood and Wall Assembly (Item 20)	1

Room No. 114, Office and Lab:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	2
Fume Hood and Wall Assembly (Item 20)	1

Room No. 115, Office and Lab:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	2
Fume Hood and Wall Assembly (Item 20)	1

Room No. 116, Office:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	2

Room No. 117, Private Lab:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	6
Fume Hood Assembly (Item 21)	1
Base Counter (Item 24)	2
Base Counter (Item 25)	1
Base Counter (Item 27)	1
Research Center Table (Item 22)	1
Base Counter (Item 23)	4
Knee Space (Item 28)	2
Wall Mounted Case (Item 29)	4

Room No. 118, Office:

Description	Quantity
Fluorescent Lighting Fixture (with 4 bulbs ea.)	2

Room No. 119, Office:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	2

Room No. 120, Private Lab:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	6
Fume Hood Assembly (Item 21)	1
Base Counter (Item 24)	2
Base Counter (Item 25)	1
Base Counter (Item 27)	1
Research Center Table (Item 22)	1
Base Counter (Item 23)	4
Knee Space (Item 28)	2
Wall Mounted Case (Item 29)	4

Room No. 121, Office:

Fluorescent Lighting Fixture (with 4 bulbs ea.)	2

Room No. 122, Agronomy Lab:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
Botany Center Table (Item 1)	2
Glazed Sliding Door Case (Item 13)	3
Wall Sink Assembly (Item 9)	1
Base Counter (Item 15)	8

Room No. 132, Storage:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Base Counter (Item 15)	3
Base Counter (Item 16)	2
Wall Mounted Case (Item 17)	3

Room No. 123, Soils Lab:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
Mineralogy Center Table (Item 2)	2
Glazed Sliding Door Case (Item 14)	2
Wall Sink Assembly (Item 9)	1
Base Counter (Item 15)	8

Room No. 133, Storage:

Description	Quantity
Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Base Counter (Item 15)	3
Base Counter (Item 16)	2
Wall Mounted Case (Item 17)	3

Room No. 124, Seed Lab:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
Botany Center Table (Item 1)	2
Glazed Sliding Door Case (Item 14)	2
Wall Sink Assembly (Item 9)	1
Base Counter (Item 15)	8

Room No. 134, Storage:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Base Counter (Item 15)	3
Base Counter (Item 16)	2
Wall Mounted Case (Item 17)	3

Room No. 125, Dairy Lab:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
General Chemistry Table (Item 3)	2
Fume Hood Assembly (Item 10)	2
Glazed Sliding Door Case (Item 14)	2
Base Counter (Item 15)	6
Sink Front Enclosure (Item 31)	1
Red Fire Lamp	1

Room No. 135, Storage:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Developing Table, Counter Top, Fixture Water, Electric (Item 14A)	1
Printing Table, Counter Top, Sink, Trap, Drain and Fittings, Fixture Water, Electric	1
Sliding Door Case	2

Room No. 126, Physical Chemistry:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
Organic Chemistry Table (Item 5)	2
Fume Hood Assembly (Item 10)	2
Glazed Sliding Door Case (Item 14)	2
Base Counter (Item 15)	6
Wall Sink Assembly (Item 9)	1

Room No. 136, Storage:

Description	Quantity
Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Base Counter (Item 15)	3
Base Counter (Item 16)	2
Wall Mounted Case (Item 17)	3

Room No. 127, Organic Chemistry:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
Organic Chemistry Table (Item 5)	2
Fume Hood Assembly (Item 21)	2
Glazed Sliding Door Case (Item 14)	2
Base Counter (Item 15)	7
Sink, Front Enclosure (Item 31)	1

Room No. 137, Storage:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Base Counter (Item 15)	3
Base Counter (Item 16)	2
Wall Mounted Case (Item 17)	3

Room No. 128, General Chemistry:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
General Chemistry Table (Item 3)	2
Fume Hood Assembly (Item 10)	2
Glazed Sliding Door Case (Item 14)	2
Base Counter (Item 15)	7
Sink, Front Enclosure (Item 31)	1

Room No. 138, Storage:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Base Counter (Item 15)	3
Base Counter (Item 16)	2
Wall Mounted Case (Item 17)	3

Room No. 129, Physics Lab:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
Physical Chemistry Table (Item 4)	2
Wall Sink Assembly (Item 9)	1
Glazed Sliding Door Case (Item 14)	2
Base Counter (Item 15)	8

Room No. 139, Storage:

Description	Quantity
Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Base Counter (Item 15)	3
Base Counter (Item 16)	2
Wall Mounted Case (Item 17)	3

Room No. 130, Biology Lab:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
Botany Center Table (Item 1)	2
Wall Sink Assembly (Item 9)	1
Glazed Sliding Door Case (Item 14)	2
Base Counter (Item 15) w/ 4 Gas Outlets	8

Room No. 140, Storage:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Base Counter (Item 15)	3
Base Counter (Item 16)	2
Wall Mounted Case (Item 17)	3

Room No. 131, Zoology Lab:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	17
Pressed Wood Locker	3
Center Work Table (Item 7)	5
Wall Sink Assembly (Item 9)	1
Glazed Sliding Door Case (Item 14)	2
Base Counter (Item 15)	7

Room No. 141, Storage:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Glazed Sliding Door Case (Item 11)	3
Base Counter (Item 15)	3
Base Counter (Item 16)	2
Wall Mounted Case (Item 17)	3

Room No. 142, Chemical Supply:

Fluorescent Lighting Fixture (with 3 bulbs ea.)	8
Preparation Table (Item 19)	1
Base Counter (Item 15)	2
Base Counter (Item 16)	6
Wall Mounted Case (Item 18)	4
Glazed Sliding Door Case (Item 12)	14

Room No. 143, Dean:

Description	Quantity
Fluorescent Lighting Fixture (with 3 bulbs ea.)	4
Clock	1

Room No. 144, Secretary & Reception: (Including all partitioned units.)

Fluorescent Lighting Fixture (with 3 bulbs ea.)	4
Clock and Control Box Unit	1
Electrical Panel	1
Clock	1
Wooden Shelf Unit	1

Room No. 145, Men's Toilet:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Water Closet, complete with seat and flush valve	1
Toilet Paper Holder	1
Paper Towel Holder	1
Urinal, complete with flush valve	1
Lavatory, complete with hot and cold water faucet	1
Mirror, wall mtd.	1
Porcelain Shelf, wall mtd.	1
Fluorescent Lighting Fixture (with 1 bulb ea.)	1

Room No. 146, Women's Toilet:

Incandescent Lighting Fixture (with 1 bulb ea.)	2
Fluorescent Lighting Fixture (with 1 bulb ea.)	2
Water Closet, complete with seat and flush valve	2
Lavatory, complete with hot and cold water faucet	2
Porcelain Shelf, wall mtd.	2
Mirror, wall mtd.	2
Toilet Paper Holder	2
Paper Towel Holder	1

Room No. 147, Men's Toilet:

Watercloset, complete with seat and flush valve	3
Urinal, complete with flush valve	8
Lavatory, complete with hot and cold water faucet	3
Porcelain Shelf, wall mtd.	3
Mirror, wall mtd.	3
Toilet Paper Holder	3
Paper Towel Holder	1
Incandescent Lighting Fixture (with 1 bulb ea.)	4
Fluorescent Lighting Fixture (with 1 bulb ea.)	3

Room No. 148, Janitor's Room:

Service Sink with hot and cold water	1
Incandescent Lighting Fixture (with 1 bulb ea.)	1

Room No. 149, Mechanical Room:

Description	Quantity
Incandescent Lighting Fixture (with 1 bulb ea.)	5
Electric Panel	1

Room No. 151, Storage:

Electric Panel	3

Room No. 150, Gas Generator Room:

Incandescent Lighting Fixture (with 1 bulb ea.)	2

Outside:

South Porch to West:	
Fluorescent Lighting Fixture (with 1 bulb ea.)	1
Flood Light	5
South Porch to East:	
Fluorescent Lighting Fixture (with 1 bulb ea.)	1
North Porch:	
Fluorescent Lighting Fixture (with 1 bulb ea.)	1
West Porch:	
Fluorescent Lighting Fixture (with 1 bulb ea.)	2

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

3) Test Reports for Electrical and Mechanical System, Agriculture Building, Kabul University:

Mechanical:

Item Boiler Room:

1) 1 - Boiler w/Smoke Connections; - Mfg. Eisenwerk-Baumgate, Model # D1-2, tested and accepted in accordance with contract Spec., Pg. 30-02, Par. 28-21.

2) 1 - Oil-Burner w/Motor; - Mfg. Monarch, Model # ECD7-4, tested and accepted in accordance with contract Spec., Pg. 30-04, Par. 30-08.

3) 1 - Control Console; - Mfg. Weis-haupt, Model # PF3D/4, tested and accepted with Spec., Pg. 30-08, Par. 30-17.

4) 1 - Circulating Pump w/Motor; - Mfg. KSB, Model # ETA 65-26G, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-15.

5) 1 - Circulating Pump w/Motor; - Mfg. KSB, Model # ETA 80-26G, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-15.

6) 2 - Thermostatic Mixing Valves w/Motor; - Mfg. Honeywell, Model # Q455, tested in accordance with Spec., Pg. 26-09, Par. 26-15.

7) 3 - Blow-Off Compression Tanks; - Capacity 760 liters (205 gal.) - Mfg. Bertrams A. G., tested and accepted in accordance with Spec., Pg. 30-12, Par. 30-21.

8) 2 - Thermostatic Mixing Valves with Motors; - Mfg. Honeywell, Model # Q455, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-45.

9) 2 - Fuel Storage Tanks; - Capacity 15,000 liters (3,967 gal.), tested and accepted in accordance with Spec., Pg. 30-05, Par. d.

10) Controls, tested and accepted in accordance with Spec., Pg. 30-08, Par. 30-17.

11) Pressure Gages and Thermometers, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-12, 30-20 and 30-21.

12) Pressure Relief Valves, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

13) Feed Water Regulator, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

14) Cold Water Connection, tested and accepted in accordance with Spec., Pg. 30-09, Par. 30-18.

15) 1 - Air Compressor w/Engine; - Mfg. Dietz, Model # CD 323, tested and accepted in accordance with Spec., Pg. 26-11, Par. 26-23a & b.

Item Equipment Room:

16) 1 - Gas Generator; - Mfg. Aerogen, Model # ELTRFS #3, tested and accepted in accordance with Spec., Pg. 32-03, Par. 32-10.

17) Cocks, tested and accepted in accordance with Spec., Pg. 32-03, Par. 32-09.

18) Valves, tested and accepted in accordance with Spec., Pg. 32-03, Par. 32-08.

Item Heating System:

19) 1 - Hot Water Generator; - Mfg. Rohleder-Kesselschmiede, Model # CW S/1.

20) 1 - Circulating Pump; - Mfg. W. Oplander, Model #30, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-15.

21) 1 - Aquastat w/Controls; - Mfg. Honeywell, Model # 6TS-0, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-15.

22) 1 - Automatic Thermostat; - Mfg. Frankfurt, Model # RAK 3-15, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-21.

23)
2 - Convectors; - Mfg. Bestell, Model # 20/30
2 - Convectors; - Mfg. " , Model # 20/16/87F
7 - Convectors; - Mfg. " , Model # 20/68
2 - Convectors; - Mfg. " , Model # 20/90
3 - Convectors; - Mfg. " , Model # 20/27
1 - Convector ; - Mfg. " , Model # 20/35
3 - Convectors; - Mfg. " , Model # 20/38
11 - Convectors; - Mfg. " , Model # 20/35
1 - Convector ; - Mfg. " , Model # 20/28
2 - Convectors; - Mfg. " , Model # 20/11/87F
1 - Convector ; - Mfg. " , Model # 15/51
10 - Convectors; - Mfg. " , Model # 25/86
2 - Convectors; - Mfg. " , Model # 20/21
2 - Convectors; - Mfg. " , Model # 20/27

tested and accepted in accordance with Spec., Pg. 28-03, Par. 28-06.

24) Pressure Relief Valve, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

25) Pressure Gage, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-20.

26) Thermometer, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-21.

27) Feed Water Regulator, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

28) Valves, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-13.

29) Control, tested and accepted in accordance with Spec., Pg. 30-08, Par. 30-17.

30) Strainer, tested and accepted in accordance with Spec., Pg. 30-11, Par. 30-23.

31) Test of Boiler System, tested and accepted in accordance with Spec., Pg. 28-08, Par. 28-17.

32) Test of Heater System, tested and accepted in accordance with Spec., Pg. 26-19, Par. 26-35.*

Item Water Service System:

33) Fire Protection Equipment; - Mfg. Hoenig, Model # IS-V/SP-HFL, tested and accepted in accordance with Spec., Pg. 26-14, Par. 26-29.

34) Water Pipe, Fitting and Connections, tested and accepted in accordance with Spec., Pg. 26-07, Par. 26-12 and Pg. 26-19, Par. 26-35.

Item Plumbing System:

35) Soil, Waste, Drain & Vent Pipe, Fitting & Connections, tested and accepted in accordance with Spec., Pg. 26-03, Par. 26-05, Pg. 26-04, Par. 26-06, Pg. 26-05, Par. 26-08, Pg. 26-05, Par. 26-09, & Pg. 26-05, Par. 26-10.

36) Cleaning of the Hot Water System and Sterilization of Water Service System as outlined in Specs., Pg. 26-08, Subpar. (f) & Pg. 28-08, Par. 28-18.

Cleaning of Hot Water System and Sterilization of the Water Service System to be accomplished by introducing disenfecting solutions into the main water distribution system, allowing the entire system to be affected.

The Hot Water System should be fully operational** for at least 48 hours prior to introducing solutions into the system. Circulation of solution in system should cover a period of at least 48 hours as outlined in Spec., Pg. 28-08, Par. 28-18.

* This circuit supplies the hot water requirements for the Rest Rooms.
** Fully operational, allowing the system to function as it would during normal operations.

Item Gas System:

37) 1 - Gas, Generator; - Mfg. Aerogen, Model # ELTPFS #3, tested and accepted in accordance with Spec., Pg. 32-03, Par. 32-10, Test Report included.

38) Cocks, tested and accepted in accordance with Spec., Pg. 32-03, Par. 32-09.

39) Valves, tested and accepted in accordance with Spec., Pg. 32-03, Par. 32-08.

40) Piping and Fittings, tested and accepted in accordance with Specs., Pg. 32-02, Par. 32-04 (a) & Pg. 32-01.

41) Test of System, System tested and accepted in accordance with Spec., Pg. 32-04, Par. 32-12.

42) Ventilating System & Equipment, tested and accepted in accordance with Spec., Pg. 31-01.

Summary of Mechanical Specifications:

1) Tools*, operating and maintenance instructions are provided in accordance with Specs., Pg. 28-08, Par. 28-15 and Pg. 28-08, Par. 28-16. This equipment and instruction references will remain in the custody of the contractor for the duration of service warranty, as per contract agreement.

2) Cleaning and sterilization of water distribution system will be accomplished as described in Item 36.

3) Contractor's Liability for Good Workmanship:

The Contractor shall be responsible for good workmanship in the performance of this contract in accordance with the terms and conditions thereof. The Contractor shall be responsible for any losses, damages, or other expenses resulting from his failure to perform good workmanship or other equipments of this contract, and shall at its own expense repair any defects in the University facilities of which Contractor is given notice within one year of acceptance of such facilities and which are caused by faulty workmanship of Contractor's employees of faulty material, or by failure of Contractor to follow plans and specifications as modified by change orders and field changes approved by the Resident Engineer.

* One set of tools including welding equipment will be furnished for complete maintenance program to be completed with final of University Project.

4) Data and references covered in this acceptance report have been compiled from approved data and references submitted by the Contractor and material described herein is effective this date, 5 March 1964.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

PACIFIC ARCHITECTS AND ENGINEERS, INC.

January 21, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Submitted herewith is Certificate of Acceptance for the Engineering Building, Kabul University.

Also submitted are the following:

1) List of uncompleted work.

2) List of installed equipment.

3) Test reports for electrical and mechanical systems.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

PACIFIC ARCHITECTS AND ENGINEERS, INC.

January 21, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Certificate of Acceptance

In accordance with "Article V - Acceptance of Work" of contract between the United States of America Represented by the Agency for International Development ("A.I.D.") and Hochtief Aktiengesellschaft fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann dated 2nd Day of April, 1963, Pacific Architects and Engineers, Inc. hereby issue this certificate for the Engineering Building.

Pacific Architects and Engineers, Inc. as per contract between PA&E and U.S.A.I.D., have inspected the Engineering Building and accept the work as being complete in accordance with the design drawings, change orders and specifications and ready for occupancy by the Kabul University representing the Royal Government of Afghanistan.

Pacific Architects and Engineers, Inc. therefore recommend that the keys to the Engineering Building be accepted by the Agency for International Development (A.I.D.) to be turned over to the Kabul University Administration.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

GPS/ms

1) List of Uncompleted Work, Engineering Building, Kabul University:

1) Telephone system, clocking and programing system and fire alar system are installed but can not be tested for final correct operation until switchboard and related installations are completed in the Administration and Classroom Building.

2) Drafting table tops and adjusting devices must be installed.

3) 12 tablet arm chairs must be furnished.

4) Government furnished equipment, not in this contract, must be installed at a later date by the user. Stub-ups and wiring are provided according to the contract design drawings.

Operational Note:

The skylight windows as designed and installed are satisfactory and weathertight. However, a maintenance problem of critical significance is involved during periods of heavy snowfall. It will be absolutely essential to clear these windows and the adjacent roofs of snow immediately upon occurance of such weather conditions. Otherwise, a static head of water could build up and leakage and damage could occur.

Hochtief will provide 2 extra skylight window panes to replace those which have minor cracks. These skylight panes will not be installed by Hochtief as existing cracks do not warrant replacement at this time.

Because of extreme cold weather and unavailability of oil for heating, several cracks have developed in corridor ceiling and in brick walls. Hochtief will repair these defects when building has been heated to occupancy temperature.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

2) List of Installed Equipment, Engineering Building, Kabul University:

Architectural:

Room 102, Corridor:

Description	Quantity
Bulletin Board, wall mtd.	3
Drinking Fountain, wall mtd.	3
Fluorescent lighting fixture (with 1 bulb ea.)	36
Clock	3
Clock bell	4
Fire alarm bell	4
Fire alarm box	3
Fire alarm lamp	6
Bulletin board lamp	3
Exit light	3

Room 103, Library:

Fluorescent lighting fixture (with 3 bulbs ea.)	2

Room 103-A, Library:

Fluorescent lighting fixture (with 3 bulbs ea.)	2

Room 104, Secy. & Recept.:

Fluorescent lighting fixture (with 3 bulbs ea.)	6
Clock	1
Clock control box	1

Room 105, Dean:

Fluorescent lighting fixture (with 4 bulbs ea.)	1

Room 106, Seminar & Conference:

Fluorescent lighting fixture (with 3 bulbs ea.)	6

Room 107-116, Offices:

Fluorescent lighting fixture (with 4 bulbs ea.)	1 ea. room

Room 117, Classroom:

Chalkboard, wall mtd.	1
Venetian Blind, complete	5
Fluorescent lighting fixture (with 2 bulbs ea.)	20
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	40

Room 118, Classroom:

Description	Quantity
Chalkboard, wall mtd.	1
Venetian Blind, complete	2
Fluorescent lighting fixture (with 2 bulbs ea.)	16
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	28

Room 119, Classroom:

Chalkboard, wall mtd.	1
Venetian Blind, complete	2
Fluorescent lighting fixture (with 2 bulbs ea.)	16
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	28

Room 120, Classroom:

Chalkboard, wall mtd.	1
Venetian Blind, complete	2
Fluorescent lighting fixture (with 2 bulbs ea.)	16
Instructor's desk	1
Instructor's chair	1
Tablet arm chair	28

Room 121, Classroom:

Chalkboard, wall mtd.	1
Venetian Blind, complete	2
Fluorescent lighting fixture (with 2 bulbs ea.)	16
Instructor's desk	1
Instructor's chair	1
Tablet arm chair (12 more will be furnished by Hochtief upon arrival.)	16

Room 122, Drafting Room:

Chalkboard, wall mtd.	1
Fluorescent lighting fixture (with 2 bulbs ea.)	60
1) Storeroom lighting fixture (incandescent with 1 bulb ea.)	1
2) Storeroom lighting fixture (incandescent with 1 bulb ea.)	2
Instructor's desk	1
Instructor's chair	1
Drafting Table (Drawing board with height adjusting device will be furnished by Hochtief upon arrival.)	30
Revolving stool	30

Room 123, Surveying Lab:

Description	Quantity
Fluorescent lighting fixture (with 2 bulbs ea.)	30
Storeroom lighting fixture (incandescent with 1 bulb ea.)	2
Instructor's desk	1
Instructor's chair	1
Drafting Table (Drawing board with height adjusting device will be furnished by Hochtief upon arrival.)	12
Revolving stool	12

Room 124, Mechanical Eng.:

Service sink, complete with hot and cold water valves	1
Fluorescent lighting fixture (with 2 bulbs ea.)	24
1) Storeroom lighting fixture (incandescent with 1 bulb ea.)	1
2) Storeroom lighting fixture (incandescent with 1 bulb ea.)	2
Student Bench	5
Revolving stool	10

Room 125, Instrumentation Room:

Service sink, complete with hot and cold water valves	1
Fluorescent lighting fixture (with 2 bulbs ea.)	24
1) Storeroom lighting fixture (incandescent with 1 bulb ea.)	1
2) Storeroom lighting fixture (incandescent with 1 bulb ea.)	2
Student Bench	7
Revolving stool	14

Room 126, Electrical Room:

Service sink, complete with hot and cold water valves	1
Fluorescent lighting fixture (with 2 bulbs ea.)	24
1) Storeroom lighting fixture (incandescent with 1 bulb ea.)	1
2) Storeroom lighting fixture (incandescent with 1 bulb ea.)	2
Student Bench	7
Revolving stool	14

Room 127, Mining Metalurgy, Petrol. Engr.:

Service sink, complete with hot and cold water valves	1
Fume Hood Assembly, complete	1
Fluorescent lighting fixture (with 2 bulbs ea.)	24
1) Storeroom lighting fixture (incandescent with 1 bulb ea.)	1
2) Storeroom lighting fixture (incandescent with 1 bulb ea.)	2

Room 127, Mining Metalurgy, Petrol. Eng.: (Cont'd)

Description	Quantity
Student Bench	5
Revolving stool	10

Room 128, General Materials Testing:

Service Sink, complete with hot and cold water valves	1
Lab. Sink, Stainless Steel, complete with hot and cold water valves	2
Fume Hood Assembly, complete	1
Fluorescent lighting fixture (with 2 bulbs ea.)	24
1) Storeroom lighting fixture (incandescent with 1 bulb ea.)	1
2) Storeroom lighting fixture (incandescent with 1 bulb ea.)	2
Student Bench	4
Revolving stool	8

Room 129-A, Bituminous & Structural Lab:

Service Sink, complete with hot and cold water valves	1
Lab. Sink, Stainless Steel, complete with hot and cold water valves	1
Fluorescent lighting fixture (with 2 bulbs ea.)	12
Storeroom lighting fixture (incandescent with 1 bulb ea.)	2

Room 129, Irrigation & Hydraulics Lab:

Fluorescent lighting fixture (with 2 bulbs ea.)	36
1) Storeroom lighting fixture (incandescent with 1 bulb ea.)	2
2) Storeroom lighting fixture (incandescent with 1 bulb ea.)	2
3) Storeroom lighting fixture (incandescent with 1 bulb ea.)	1
Student Desk	3
Revolving stoll	6

Room 140, Men's Toilet:

Lavatory, complete with hot and cold water valves	3
Wall mirror	3
Urinal, complete with flush valve	3
Water Closet, complete with seat and flush valve	2
Toilet paper holder	2
Paper towel holder	1
Incandescent lighting fixture (with 1 bulb ea.)	2
Fluorescent lighting fixture over mirror (with 1 bulb ea.)	3

Room 141, Women's Toilet:

Description	Quantity
Lavatory, complete with hot and cold water valves	3
Wall mirror	3
Water Closet, complete with seat and flush valve	2
Toilet paper holder	2
Paper towel holder	1
Incandescent lighting fixture (with 1 bulb ea.)	2
Fluorescent lighting fixture over mirror (with 1 bulb ea.)	3

Room 142, Men Student's Toilet:

Lavatory, complete with hot and cold water valves	4
Wall mirrors	4
Urinal, complete with flush valve	10
Water Closet, complete with seat and flush valve	4
Toilet paper holder	4
Paper towel holder	1
Incandescent lighting fixture (with 1 bulb ea.)	4
Fluorescent lighting fixture over mirror (with 1 bulb ea.)	4

Room 143, Janitor:

Service Sink, complete with hot and cold water valves	1
Incandescent lighting fixture (with 1 bulb ea.)	2

Room 144, Mechanical Room:

Incandescent lighting fixture (with 1 bulb ea.)	6

Room 145, Gas Generator & Storage:

Incandescent lighting fixture (with 1 bulb ea.)	2

Transformer Bldg.:

Incandescent lighting fixture, wall mtd. (with 1 bulb ea.)	3

Outside:

East entrance:	
Fluorescent lighting fixture (with 1 bulb ea.)	1
South entrance:	
Fluorescent lighting fixture (with 1 bulb ea.)	4
West entrance:	
Fluorescent lighting fixture (with 1 bulb ea.)	2

Parking Area:

Description	Quantity
Flood lights (with 1 bulb ea.)	3
West Side:	
Flood lights (with 1 bulb ea.)	2

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

3) Test Reports for Electrical and Mechanical System, Engineering Building, Kabul University:

Mechanical:

Item Boiler Room:

1) 1 - Boiler w/Smoke Connections; - Mfg. Eisenwerk-Baumgate, Model # 13574, tested and accepted in accordance with contract Spec., Ref. Pg. 30-02, Par. 28-21.

2) 1 - Oil-Burner w/Equipment; - Mfg. Monarch, Model # 13574, tested and accepted in accordance with contract Spec., Ref. Pg. 30-04, Par. 30-08.

3) 2 - Circulating Pumps; - Mfg. KSB, Model # 6/101/164/195/1 & 6/101/164/196/1, tested and accepted in accordance with Spec., Ref. Pg. 30-07, Par. 30-15.

4) 2 - Fuel-Oil Storage Tanks; - Capacity 15,000 liters, tested and accepted in accordance with Spec., Ref. Pg. 30-05, Par. d.

5) 3 - Blow-Off (Compression) Tanks; - Mfg. Bertrams A. G., Capacity 760 liters, tested and accepted in accordance with Spec., Ref. Pg. 30-12, Par. 30-27.

6) 2 - Thermostatic Mixing Valves; - Mfg. Honeywell, Model # Q455 w/Motors, Model # M904F, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-15.

7) Controls, tested and accepted in accordance with Spec., Pg. 30-08, Par. 30-17.

8) Pressure Gages and Thermometers, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-12, 30-20 & 30-21.

9) Pressure Relief Valves, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

10) Feed Water Regulator, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

11) Cold Water Connection, tested and accepted in accordance with Spec., Pg. 30-09, Par. 30-18.

Item Heating System:

12) 1 - Electrical Hot Water Heater; - Mfg. Stiebel, Model # SHST/H1161, tested and accepted in accordance with Spec., Pg. 26-10, Par. 26-18.

13) 1 - Aquastat w/Controls; - Mfg. Honeywell, Model # GUMD STS-0, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-15.

14) 1 - Circulating Pump; - Mfg. Siemens, Model # E707361, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-15.

15) 2 - Unit Heaters; - Mfg. GEA, Model # 304.
2 - Unit Heaters; - Mfg. GEA, Model # 312, tested and accepted in accordance with Spec., Pg. 28-04, Par. 28-07.

16) 2 - Convectors; - Mfg. Bestell, Model # 20/60,
1 - Convector ; - Mfg. " , Model # 20/77,
6 - Convectors; - Mfg. " , Model # 25/77,
1 - Convector ; - Mfg. " , Model # 25/60,
2 - Convectors; - Mfg. " , Model # 25/30,
13 - Convectors; - Mfg. " , Model # 15/27,
1 - Convector ; - Mfg. " , Model # 15/54,
3 - Convectors; - Mfg. " , Model # 20/15,
1 - Convector ; - Mfg. " , Model # 15/55,
1 - Convector ; - Mfg. " , Model # 15/57,
tested and accepted in accordance with Spec., Pg. 28-03, Par. 28-06.

17) Pressure Relief Valve, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

18) Pressure Gage, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-20.

19) Thermometer, tested and accepted in accordance with Spec., Pg. 30-10, Par. 30-21.

20) Feed Water Regulator, tested and accepted in accordance with Spec., Pg. 30-04, Par. 30-07.

21) Valves, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-13.

22) Control, tested and accepted in accordance with Spec., Pg. 30-08, Par. 30-17.

23) Strainer, tested and accepted in accordance with Spec., Pg. 30-11, Par. 30-23.

24) Test of Boiler System, tested and accepted in accordance with Spec., Pg. 28-08, Par. 28-17.

25) Test of Heater System, tested and accepted in accordance with Spec., Pg. 26-19, Par. 26-35.*

Item Water Service System:

26) 1 - Water, Storage Tank; - Mfg. Fietberg-Werke, Capacity 11.3 cm^3, Model # 1167518161, tested and accepted in accordance with Manufacture's Spec.

* This circuit supplies the hot water requirements for the Rest Rooms.

27) 1 - Sump Pump; - Mfg. KSB, Model # 6-101-164-197/1, tested and accepted in accordance with Spec., Pg. 26-06, Par. 26-11.

28) Pressure Gage, tested and accepted in accordance with Spec., Pg. 30-07, Par. 30-13.

29) Valves, tested and accepted in accordance with Spec., Pg. 26-09, Par. 26-13.

30) Fire Protection Equipment; - Mfg. Hoenig, Model # IS-V/SP-HFL, tested and accepted in accordance with Spec., Pg. 26-14, Par. 26-29.

31) Water Pipe, Fitting and Connections, tested and accepted in accordance with Spec., Pg. 26-07, Par. 26-12 and Pg. 26-19, Par. 26-35.

Item Plumbing System:

32) Soil, Waste, Drain & Vent Pipe, Fitting & Connections, tested and accepted in accordance with Spec., Pg. 26-03, Par. 26-05, Pg. 26-04, Par. 26-06, Pg. 26-05, Par. 26-08, Pg. 26-05, Par. 26-09, & Pg. 26-05, Par. 26-10.

33) Cleaning of the Hot Water System and Sterilization of Water Service System as outlined in Specs., Pg. 26-08, Subpar. (f) & Pg. 28-08, Par. 28-18.

Cleaning of Hot Water System and Sterilization of the Water Service System to be accomplished by introducing disenfecting solutions into the main water distribution system, allowing the entire system to be affected.

The Hot Water System should be fully operational* for at least 48 hours prior to introducing solutions into the system. Circulation of solution in system should cover a period of at least 48 hours as outlined in Spec., Pg. 28-08, Par. 28-18.

Item Gas System:

34) 1 - Gas, Generator, - Mfg. Aerogen, Model # ELTFFS #3, tested and accepted in accordance with Spec., Pg. 32-03, Par. 32-10, Test Report included.

35) Pressure Regulator, tested and accepted in accordance with Spec., Pg. 32-02, Par. 32-07.

36) Cocks, tested and accepted in accordance with Spec., Pg. 32-03, Par. 32-09.

37) Valves, tested and accepted in accordance with Spec., Pg. 32-03, Par. 32-08.

* Fully operational, allowing the system to function as it would during normal operations.

38) Piping and Fittings, tested and accepted in accordance with Specs., Pg. 32-02, Par. 32-04 (a) & Pg. 32-01.

39) Test of System, System tested and accepted in accordance with Spec., Pg. 32-04, Par. 32-12.

40) Ventilating System & Equipment, tested and accepted in accordance with Spec., Pg. 31-01.

Summary of Mechanical Specifications:

1) Tools,* operating and maintenance instructions are provided in accordance with Specs., Pg. 28-08, Par. 28-15 and Pg. 28-08, Par. 28-16. This equipment and instruction references will remain in the custody of the contractor for the duration of service warranty, as per contract agreement.

2) Cleaning and sterilization of water distribution system will be accomplished as described in Item 33.

3) Contractor's Liability for Good Workmanship:

The Contractor shall be responsible for good workmanship in the performance of this contract in accordance with the terms and conditions thereof. The Contractor shall be responsible for any looses, damages, or other expenses resulting from his failure to perform good workmanship or other requirements of this contract, and shall at its own expense repair any defects in the University facilities of which Contractor is given notice within one year of acceptance of such facilities and which are caused by faulty workmanship of Contractor's employees of faulty material, or by failure of Contractor to follow plans and specifications as modified by change orders and field changes approved by the Resident Engineer.

4) Data and references covered in this acceptance report have been compiled from approved data and references submitted by the Contractor and material described herein is affective this date, 20 January 1964.

* One set of tools including welding equipment will be furnished for complete maintenance program to be completed with final of University Project.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

3) Test Reports for Electrical and Mechanical System, Engineering Building, Kabul University:

Electrical:

Item Electrical Interior:

1) Motors and Controls, tested and accepted in accordance with Spec., Pg. 33-03, Par. 33-15 and are protected against voltage over and underloads.

2) Branch Circuits and Devices, tested and accepted in accordance with Spec., Pg. 33-08, Par. 33-13.

3) Switches, tested and accepted in accordance with Spec., Pg. 33-07, Par. 33-12.

4) Receptacles, tested and accepted in accordance with Spec., Pg. 33-07, Par. 33-11.

5) Outlets, Junction and Pull Boxes, tested and accepted in accordance with Spec., Pg. 33-06, Par. 33-10.

6) Wireways and Troughs, tested and accepted in accordance with Spec., Pg. 33-06, Par. 33-09.

7) Lighting, tested and accepted in accordance with Spec., Pg. 33-10, Pg. 33-16.

8) Test of Interior System, tested and accepted in accordance with Spec., Pg. 33-12, Par. 33-20.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 26, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Submitted herewith is the Certificate of Acceptance of contracted utilities*, Kabul University.

Also submitted are the following:

1) List of uncompleted work.

2) List of installed equipment.

3) Test reports for mechanical and electrical systems.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

* Utilities, under the terms of the contract are defined as water, electric and sewage treatment systems and includes roads and walk-ways.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

March 26, 1964

U.S.A.I.D.,
Kabul, Afghanistan

Dear Sirs:

Certificate of Acceptance

In accordance with "Article V - Acceptance of Work" of contract between the United States of America, represented by the Agency for International Development ("A.I.D.") and Hochtief Aktiengesellschaft fur Hoch-Und Tiefbauten Vorm. Gebr. Helfmann dated 2nd day of April 1963, Pacific Architects and Engineers, Inc. hereby issues this certificate for the Grading and Utilities.

Pacific Architects and Engineers, Inc. as per contract between PA&E and U.S.A.I.D., have inspected the Grading and Utilities and accept the work as being completed in accordance with the design drawings, change orders and specifications and ready for occupancy by the Kabul University representing the Royal Government of Afghanistan.

Pacific Architects and Engineers, Inc. therefore recommend that the keys to the Grading and Utilities be accepted by the Agency for International Development (A.I.D.) to be turned over to the Kabul University Administration.

Yours truly,

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

1) List of Uncompleted Work and Deficiencies for Utilities at Kabul University:

a) Sewage Treatment Plant equipment and systems to be functionally tested.

Until a source of water supply with a sufficient static pressure is made available to the sewage treatment plant, this facility cannot be functionally tested or operated.

Recommendations to connect to the city water main, as designed is the most feasible solution in correcting this deficiency.

b) Sterilization of the water distribution and its interbuilding systems.

The only source of water supply to the university is currently being supply from the main city reservoir located on elevation in the Demazan.

The reservoir is divided into two (2) ponds, the east pond is supplying the city demand, the east pond service is intermittent due to the construction of city distribution systems.

The west pond which supplies the university has a tension crack in the wall extending to the three (3) meter level.

Due to the intermittent use by the city of the east pond the university has been alloted only one (1) meter of water storage to supply the universities demand.

As a result of the lack of sufficient water supply an extremely low static pressure prevents the normal use of facilities for this reason the sterilization of the systems would be impractical.

c) Fire Alarm System:

System completed and tested, contractor instructed not to charge batteries until switchroom is occupaied by telephone operator, who is also the operator for the fire alarm system.

d) Clock and Programing System:

Clock network to all affected buildings completed. The impulse control panel is to be connected with the telephone extension branch. This circuit will be completed by April 15 as per contractor.

Program system based on a seven (7) day cycle. The program schedule is to be provided by the university authorities which in turn will be punch taped and installed by contractor.

The clock system will be operated by the D. C. (Direct Current) circuit which is scheduled for completion by September 1964.

e) Telephone System:

Interior cables and wires to the main control panel, located in the Administration and Classroom Building is to be completed by the April 10 to allow for the temporary connection of four (4) independent and twenty-five (25) extension connections required by the university, the exterior telephone lines are to be provided and installed by the university and service connections to be completed by the contractor.

f) Road surfaces composed of bituminous prime coat key mat with double bituminous surface course is to be examined and necessary repair of minor depressions in road corrected.

Road surfaces must be maintained by providing a surface of evenly graded aggregates ranging in size from 3 mm to a maximum of 7 mm.

In providing proper maintaince the roads will give years of low maintenance service.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEIZ
Resident Engineer
Kabul University

2) List of Installed Equipment, Grading & Utilities, Kabul University:

Water Distribution System:

Item	Description	Quantity
1.	Fire hydrants	18
2.	Stand pipes	4
3.	Valve boxes	50

Sewage Distribution System:

4.	Manholes (including sewage treatment plant)	67
5.	Distribution boxes	2

Sewage Treatment Plant:

Comminutor:

6.	Comminutor unit, Mfg. Chicago Pump Co., Model 10A	1

Electrical Distribution System:

7.	Lighting fixture, pole mtd., walk-way	46
8.	" " , " " , street single	12
9.	" " , " " , street double	25
10.	Manholes	7
11.	Flood lights, mounted on single pole	2
12.	" " , building mounted	2

Lift Station:

Architectural - Exterior:

13.	Incandescent lighting fixture, industrial type w/ reflector and 100W bulb.	1
14.	Flood light, enclosed weatherproof type w/clear lense and 500W bulb.	1

Architectural - Interior:

15.	Incandescent lighting fixture, industrial type w/ reflector and 150W bulb.	1
16.	Incandescent lighting fixture, vapor type, clear lense w/guard and 100W bulb.	1
17.	Electric panelboard w/main service disconnect and fuse board.	1
18.	Motor starter control panel and mounting.	1

Item	Description	Quantity
19.	Fire alarm	1
20.	Power ventilator	1
21.	Light switches	3

Chlorination Station:

Architectural - Exterior:

22.	Incandescent lighting fixture, industrial type w/ reflector and 100W bulb.	1
23.	Floodlight, enclosed weatherproof type w/clear lense and 500W bulb.	1
24.	Gas mask box w/mask, wall mtd.	1

Architectural - Interior:

25.	Incandescent lighting fixture, industrial type w/ reflector and 150W bulb.	4
26.	Electric heater units, ceiling mtd.	2
27.	Power roof ventilator (1070 CFM)	1
28.	Electric panelboard w/main service disconnect and fuse board.	1
29.	Switches (lights and ventilator)	2

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University

3) Test Reports for Mechanical and Electrical System, Grading and Utilities, Kabul University:

Mechanical:

1) 1 - Pump, Mfg. Chicago Pump, Model # OM/5 w/motor, Mfg. Howell, Model # 452AB1, Type N, tested and accepted in accordance with Specs., Pg. 17-01, Par. 17-03.

2) 1 - Pump, Mfg. Chicago Pump, Model # OM/4 w/motor, Mfg. Howell, Model # 333AC7, Type N, tested and accepted in accordance with Specs., Pg. 17-01, Par. 17-03.

3) 1 - Pump, Mfg. Chicago Pump, Model # OM/4 w/motor, Mfg. Howell, Model # 333AC6, Type N, tested and accepted in accordance with Specs., Pg. 17-01, Par. 17-03.

4) 3 - Float mechanisms complete w/switches, tested and accepted in accordance with standard test procedures.

5) 1 - Chlorinator, Mfg. Wallace and Tiernan, Model # A 731G, Serial # 02524, tested and accepted in accordance with manufactures Specifications.

6) 1 - Chlorinator, Mfg. Wallace and Tiernan, Model # A 731G, Serial # 02523, tested and accepted in accordance with manufactures Specifications.

7) 1 - Platform scale, Mfg. Tacho, Model # 121177 w/indicator, tested and accepted in accordance with manufactures specifications.

8) 2 - Chlorine bottles

9) 1 - Distribution manifold panel complete w/6 valves, wall mtd., tested and accepted.

10) 1 - Flow meter w/graphic recorder, Mfg. Builders-Providence, Model CRB-R.

11) 1 - Transmitter control w/float mechanism, Mfg. Builders-Providence, Model # CTF.

Water Distribution System:

Water mains, branches and valves, tested and accepted in accordance with Specs., Section 13, Pgs. 13-01, 13-02, 13-03, 13-04, thru Par. 13-06, Pg. 13-05, Par. 13-10, Pg. 13-06, Par. 13-11 and Pg. 13-07, Par. 13-12*.

* Pg. 13-07, Par. 13-12, pertains to the sterilization of the water distribution system, refer to general comments.

12) Fire hydrants, tested and accepted in accordance with Specs., Section 13, Pg. 13-05, Par. 13-07.

13) Standpipes, tested and accepted in accordance with Specs., Section 13, Pg. 13-05, Par. 13-08.

14) The sterilization of the water distribution is to be accomplished by introduction a disenfecting solution, preferably chlorine, into the system at it point of supply, the Deznzan water reservoir. The disenfection should be permitted to remain in the system for at least six (6) hours before draining.

The dossage of chlorine should be not greater than 0.2 parts per million to permit use for human consumption.

15) Sewer distribution system, tested and accepted in accordance with Specs., Section 14, Pgs. 14-01, 14-02, 14-03.

16) Manholes, tested and accepted in accordance with Specs., Pg. 14-04, Par. 14-07.

Electrical:

1) 3 - Transformer stations.
2) Motors and controls.
3) Branch circuits and devices.
4) Switches.
5) Receptacles.
6) Outlets.
7) Lighting.

All electrical system tested and accepted in accordance with Specs., Section 11.

PACIFIC ARCHITECTS AND ENGINEERS, INC.

GUNTER P. STEITZ
Resident Engineer
Kabul University